THE EFFECTS OF CONFLICTING ACCOUNTABILITY ON AUDITORS' DECISION BEHAVIORS IN SINGLE-ISSUE AND MULTIPLE-ISSUE DECISION EVENTS

By

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Abstract of Dissertation Presented to the Graduate School
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One of the most common and most fundamental performance pressures auditors face is accountability. Current research suggests that auditors who feel accountable to someone else often change the way they make decisions. Unfortunately, current research has focused on accountability effects under simple accountability, where the auditor is accountable to a single party. Auditors often find themselves accountable to multiple parties simultaneously. In many cases this may result in conflicting accountability, where multiple evaluative parties prescribe mutually exclusive behaviors, forcing auditors to make decisions under conditions of conflict. This study examines auditors' behaviors under conflicting accountability by developing a model of decision making under accountability, and then by using two laboratory experiments to test several hypotheses suggested by the model. Conflicting accountability was hypothesized to motivate auditors to use more complex decision processing and to use various decision tactics to maintain identity images. Conflicting accountability was also hypothesized to reduce the biases typically observed under simple accountability. Experiments 1 and 2 examined auditor behavior in single-issue and multiple-issue decision events respectively, using 70 managers and partners from large international accounting firms as subjects. The results of the experiments generally supported the hypotheses. In the single-issue experiment, conflicting accountability appears to have motivated subjects to increase the complexity of their decision processing throughout the decision event. Subjects under conflicting accountability also were more likely to resolve the ambiguous issue using compromise--a distributive tactic. In the multiple-issue experiment, subjects under conflicting accountability tended to resolve the two ambiguous issues by trading off issues--an integrative tactic. And regardless of the number of issues, subjects under conflicting accountability were more likely to try to reduce their personal responsibility for the decision(s) by consulting with other members of their audit firms. Finally, there is weak evidence that conflicting accountability may reduce decision biases observed in single-issue decision events under simple accountability.

CHAPTER 1
INTRODUCTION AND MOTIVATION

Introduction

This study examines how conflicting accountability affects auditors' decision behaviors in decision settings involving ambiguous audit issues. Like most decision makers, auditors face performance pressures when making audit decisions. This fact is important to the study of auditor judgment and decision making as the presence of social, economic, and cognitive pressures in audit settings is likely to alter the way auditors view their decision tasks, the way they make their decisions, and ultimately the decision options they choose (Ashton 1990; DeZoort and Lord 1997).

One of the most common and most fundamental performance pressures auditors face is accountability, or the pressure one feels in anticipation of having his or her behavior monitored and/or evaluated by someone, with whom it is important to maintain a positive image (Schlenker 1986).[1] Accountability's status among pressure effects in auditing is supported by research showing that auditors value the ability to justify their decisions above all other decision-making characteristics (Gibbins and Emby 1985). This is not surprising given the social nature of auditing, where auditors' most valued assets in relation to clients, third parties, and peers are their reputations.

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[1] This is a paraphrasing of Schlenker's (1986) definition of accountability, which reads, "[Accountability is]...the condition of being answerable to audiences, oneself included, for events that are associated with one's identity and are relevant to salient prescriptions about how things should be" (10-11).

Clients, third parties, and peers regularly monitor and evaluate auditors and their audit firms, and each clearly has the ability to provide rewards and/or sanctions related to these evaluations.

Current audit research suggests that auditors who feel accountable to someone else for their decisions often change the way they make those decisions (e.g., Buchman et al. 1996; Hoffman and Patton 1997; Johnson and Kaplan 1991; Koonce et al. 1995; Lord 1992; Peecher 1996). However, this process is not well understood, as these studies tend to view accountability as a generic pressure rather than a pressure whose effects are source and situation specific (see Cloyd 1997). Because of this, many aspects of accountability in audit settings remain unexplored, and no overall model of accountability effects on professional auditors has emerged. One important aspect of accountability that has not been examined is how accountability affects audit decisions when the auditor is accountable to *multiple* parties (sources) simultaneously. Extant audit research has focused on accountability effects under simple accountability, where the auditor is accountable to a single party. However, auditors often find themselves accountable to multiple parties simultaneously (Gibbins and Newton 1994). This creates a much more complex decision setting where performance pressures from two or more sources may prescribe different behaviors. In many cases this may result in *conflicting* accountability, where multiple evaluative parties prescribe mutually exclusive behaviors, forcing auditors to make decisions under conditions of conflict.[2] Such conflict can exist in audit settings between external parties (e.g., clients and third parties), between internal parties (e.g., multiple supervisors), or between some combination of external and internal parties. Auditing researchers have acknowledged the importance of studying auditor behavior under conflicting accountability (e.g., Buchman et al. 1996; Koonce et al. 1995; Messier and Quilliam 1992). Yet only Gibbins and Newton (1994) have formally begun to study the phenomenon. This study examines the issue of conflicting accountability.

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[2] Conflict is "the perceived divergence of interest, or a belief that parties' current aspirations cannot be achieved simultaneously" (Rubin et al. 1994, 5).

Another important aspect of accountability addressed in this study is how accountability affects audit decisions when the decision event involves multiple issues. Virtually all of the existing audit research (and social psychology research) focuses on accountability effects in decision events involving a single dichotomous issue. Yet, auditors are often evaluated by clients, third parties, and/or peers based on how they resolve a set of audit issues (e.g. an engagement). Accountability effects may be much more varied under such conditions because multiple-issue decision events provide auditors with a much richer set of decision tactics than are typically available in single-issue decision events. Among these are tactics involving the manipulation of multiple issues (e.g., trading off issues) in order to satisfy multiple conflicting parties. Such tactics are commonly found in the negotiation literature (e.g., Bazerman 1998; Pruitt and Carnevale 1993; Rubin et al. 1994), but they appear to be highly adaptable to audit settings. Indeed, recently introduced models of the auditor-client-user relationship have depicted the relationship as one where negotiation behaviors may be appropriate--and in fact should be expected (Antle and Nalebuff 1991; Gibbins et al. 1998).

Motivation

The primary motivation for this study is the need for a well-developed model of accountability effects in auditing. Such a model is clearly needed given the underlying importance of accountability in audit settings, and given the somewhat contradictory evidence regarding auditor behavior under simple accountability. While some studies suggest that accountability motivates auditors to use relatively simple decision processing (e.g., Buchman et al. 1996; Peecher 1996), others seem to suggest that accountability motivates auditors to use relatively complex decision processing (e.g., Ashton 1990; Johnson and Kaplan 1991). This suggests that the effects of accountability may be contingent upon characteristics of the decision setting. More specifically, accountability affects may be a function of accountability-source characteristics (e.g., the number of sources, source preferences, etc.) and decision-event characteristics (e.g., number of issues, availability of tactics, etc.).

In addition to helping explain the apparently inconsistent findings noted above, a more complete model of accountability effects in professional auditing--one that includes the effects of accountability on decision processing itself--would contribute to a more realistic understanding of auditor independence. Auditing standards require auditors to remain independent in all matters relating to the audit (AAA 1973; AICPA 1988). Yet the belief appears to be widespread that auditors are often not independent (e.g., Gul 1991; Knapp 1985; Shockley 1981). And some researchers have seriously questioned whether auditors are psychologically capable of "independence". According to Bazerman and his colleagues (Bazerman et al. 1997), the accounting profession makes an erroneous assumption that auditors are able to make objective decisions, but then lose their independence at the point of reporting those judgments (e.g., due to pressures from their clients). Indeed a careful reading of auditing standards does seem to imply that auditors lose their independence only when they consciously choose to do so (AICPA 1988).[3] According to Bazerman, this assumption has led the AICPA to believe it can coax auditors to remain independent simply by using appropriate levels of propaganda and/or sanctions.

Bazerman and his colleagues argue that auditors may not be capable of making objective decisions in the first place because of the structure of the relationship auditors have with their clients and the effect this has on information processing. They maintain that such structure leads auditors to perceive going into a decision event that resolving ambiguous issues in favor of their clients is generally in their own best interest. In turn, this leads to self-serving bias during the information search and evaluation process, resulting in judgments and decisions that do not *appear* to have been made objectively. In other words, bias caused by client and third party pressure enters the audit decision during the decision process, rather than as a conscious misrepresentation of the auditor's judgment at the reporting stage. The difficulty this presents the auditing profession is that such "lack of independence" may be immune to propaganda and/or sanctions. Indeed, Bazerman and his colleagues cite numerous studies demonstrating how difficult it is to eliminate self-serving bias (e.g., Thompson and Loewenstein 1992; Loewenstein et al. 1993; Babcock et al. 1995). If Bazerman and his colleagues are correct in claiming that pressure effects occur during the processing stage rather than during the reporting stage of a decision, then the development of a processing model of accountability effects is imperative.

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[3] The Code of Professional Ethics states, "In the performance of any professional service, a member shall *maintain integrity*, shall be free of conflicts of interest, and shall not *knowingly misrepresent* facts or subordinate his or her judgment to others" (emphasis added).

Summary of Findings

This study examines the effects of conflicting accountability using an experimental methodology wherein auditor subjects encounter either single-issue or multiple-issue decision events during the completion of an audit case under conditions that should evoke either simple or conflicting accountability. The two experiments used in this study find several significant results. First, the results indicate that under conflicting accountability, auditors tend to take more time to complete single-issue decision events. I interpret this as being supportive of the hypothesis that conflicting accountability motivates auditors to use more complex processing during audit decisions. However, the increase in cognitive effort appears to occur from the beginning of the decision event--at the time the accountability sources become known--rather than at the time a decision is actually encountered. Second, the results indicate that under conflicting accountability, auditors are more likely to consult with other auditors as part of the decision process. This occurs in single-issue decision events as well as multiple-issue decision events. I interpret this as being supportive of the hypothesis that conflicting accountability motivates auditors to try to reduce their personal levels of responsibility for material ambiguous audit decisions. Third, the results provide evidence that auditors who feel conflicting accountability tend to propose more moderate (less extreme) audit adjustments when dealing with a single material audit issue. I interpret this as being supportive of the hypothesis that conflicting accountability motivates auditors in single-decision events to seek distributive resolutions to the issues. Finally, the results suggest that when auditors make decisions involving multiple issues, conflicting accountability appears to motivate them to trade off issues--that is, they resolve one issue in favor of one source, and one issue in favor of the other source. I interpret these results to mean that under conflicting accountability, auditors search for integrative solutions to the issues to try to please both sources.

Dissertation Outline

The remainder of the dissertation is presented as follows. Chapter 2 presents a discussion of accountability and reviews of the accountability and conflict resolution literatures. Chapter 3 then presents a decision model, which is used as a framework for theory and hypothesis development. Chapters 4 and 5 present experiments 1 and 2 respectively, with experiment 1 examining the effects of conflicting accountability in a single-issue decision event, and experiment 2 examining the effects of conflicting accountability in a multiple-issue decision event. Finally, Chapter 6 presents a discussion of the results and their implications for developing a model of accountability in audit settings and on future auditing research.

CHAPTER 2
LITERATURE REVIEW

Accountability is one of many environmental factors affecting auditors decisions. From a social perspective, it may be the most fundamental factor (DeZoort and Lord 1997). In this chapter, I present a discussion of accountability and its components in order to standardize readers' understanding of the concept of accountability as it is used in this study. This is helpful given the myriad descriptions that have been given throughout the psychology, social psychology, and auditing literatures (Messier and Quilliam 1992; Schlenker 1986). This discussion concentrates primarily on the *concept* of accountability and includes a well-developed model of accountability, but it also provides some examples of how the model applies in audit settings. Following this general discussion, I present a review of the accountability and conflict resolution literatures as they apply to the present study.

Accountability

Schlenker (1986) defines accountability as the pressure an individual (*actor*) feels during an *event* to behave according to certain behaviors (*prescriptions*) in order to maintain *identity images* valued by the accountability "source." In other words, people feel pressure to perform when someone is watching and/or evaluating them. This definition links the concepts of accountability and justification,[1] and provides for a model of accountability that identifies both the source of the pressure, as well as the social settings in which accountability pressure is likely to be strong or weak. This model, which has been developed and tested by Schlenker and his associates, is called the pyramid model of accountability (Pennington and Schlenker 1999; Schlenker 1986, 1997; Schlenker et al. 1991; Schlenker et al. 1994)

According to the model, all social events can be mapped onto a pyramid comprised of an accountability source and three elements, with links connecting the elements to each other and to the source (see Figure 1). The *source* is someone to whom the actor feels answerable for his behavior during a social event (Schlenker 1986). It may be a formal evaluator, someone to whom the actor must justify his behavior, or simply someone the actor wishes to impress. There are countless potential sources of accountability in the world we live in. Common sources of accountability include friends, families, colleagues, employers, the government, spectators, religious leaders, and even oneself. There are also several potential accountability sources on a typical audit engagement. Auditors are evaluated by their superiors, by existing clients, by potential clients, by third party users, by regulators, and/or by the general public. Each of these parties has certain expectations regarding the auditor's abilities and behaviors. Indeed, auditors' reputations with these parties are their most important assets.

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[1] Most of the prior audit research defines accountability as the pressure to justify one's decisions to others (e.g. Hoffman and Patton 1997; Kennedy 1993). Ashton (1990) defines justification as "the need to justify decisions to others, possibly to receive favorable evaluations from superiors or to be judged as competent by others who simply observe the decision" (155). Ashton's definition of justification is virtually identical to Schlenker's (1986) definition of accountability.

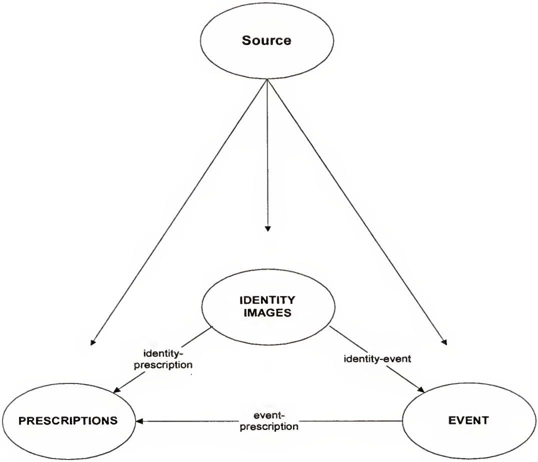

Figure 1. The accountability pyramid. Adapted from Figure 1 in Schlenker et al. (1994).

The elements of accountability are the *event*, a set of *identity images*, and a set of prescribed behaviors, or *prescriptions* (Schlenker 1986, 1997). The *event* is a unit of action and evaluation. It is used by the source to monitor and evaluate the actor along one or more dimensions. Events can be short in duration (e.g., bumping into a friend at the mall), or they can last for relatively long periods of time (e.g., the entire football season). An individual audit decision may be considered an event, as auditors are often evaluated on individual decisions they make. However, a portfolio of related audit decisions may also be considered an event. In fact, the entire engagement may be the unit of action used by the various sources to evaluate an auditor's behaviors and abilities.

Identity images are perceptions of one's personal characteristics (Schlenker 1986, 1997). People are generally highly motivated to maintain positive identity images, as doing so tends to enhance one's self image (i.e., they feel good about themselves), tends to enhance one's social image (i.e., they receive respect and approval from others), and helps one to acquire power and wealth (Schlenker 1997; Tetlock 1992). Identity images are source-specific. In other words, the identity images important for a particular event are determined by the accountability source, and can vary among sources and among events. Identity images can even vary among sources for the same event, or among events for the same source. For example, a parent watching his or her child engage in a sporting event may value hard work and enthusiasm, whereas a professional scout watching the same game may value individual skill and athleticism. Identity images important for an auditor to maintain include a generic reputation as an auditor, but may also include specific personal qualities such as being supportive, professional, competent, accommodating, independent, protective, knowledgeable, etc., depending on the source.

Prescriptions are rules of conduct and standards of performance for an event (Schlenker 1986, 1997). They are behaviors one must follow in order to be consistent with related identity images. Prescriptions are used by the actor to guide behavior and by the source to evaluate it. Examples of common prescriptions include laws, manners, norms, and expectations. Generally accepted auditing standards (GAAS) are important prescriptions for auditors to follow in order to maintain their reputations as independent professionals, but so are client and third party expectations.

The elements of accountability are closely related to each other via links whose strength is directly related to the magnitude of the accountability pressure. The *identity-event* link represents the amount of personal control the actor has over the event. The *event-prescription* link represents the extent to which a clear set of prescriptions is perceived to exist that should govern conduct during an event. The *identity-prescription* link represents the extent to which prescriptions are perceived as being applicable to the actor by virtue of the identity images he wishes to maintain. When these links are strong (weak), personal responsibility for the event is high (low), and the accountability pressure the actor feels during the event will be relatively strong (weak). In other words, an actor will feel accountability pressure during an event to the degree the following conditions are true: (1) clear prescriptions for behavior are perceived to exist, (2) the actor is perceived to be bound by those prescriptions, and (3) the actor is perceive to have a great deal of personal control over the event.

Accountability pressure can come from a single source, or from multiple sources during an event. Simultaneous accountability pressure from more than one source is called *complex accountability*. Complex accountability can be mapped onto adjoining pyramids that share an event, but which have separate sets of identity images and separate sets of prescriptions linked to those images (see Figure 2). *Conflicting accountability* is a special case of complex accountability where the prescriptions in adjoining pyramids conflict--that is, following one set of prescriptions precludes the

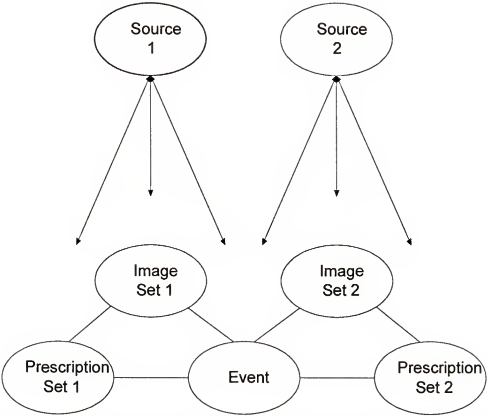

Figure 2. Complex accountability.

actor from following the other set of prescriptions. Politicians often encounter conflicting accountability from different constituencies when voting on legislative issues. Auditors may feel conflicting accountability during audit engagements where clients and third parties evaluate them using different sets of prescriptions.

The pyramid model does not define accountability as a dichotomous state. Instead, accountability pressure from each source falls somewhere along a continuum in proportion to the strength of the links in their respective pyramids. As the links become stronger, accountability pressure moves outward along the continuum, increasing the likelihood that the actor's behavior will be affected. Under conflicting accountability, the pressure from each source can be strong or weak depending on where it falls along its own continuum. But *relative* strength is also important. This is illustrated using a graph where the horizontal axis acts as the continuum for one source and the vertical axis acts as the other (see Figure 3). Events falling in region A (between the dashed lines) involve conflicting accountability, as the pressure from both sources is likely to affect the actor's behavior. However, for those events falling in regions B and C, the relative strength of the accountability pressure from one source is likely to overwhelm the accountability pressure from the other. Thus conflicting accountability does not require equal pressure from each source, but if the pressures from the two sources are too unbalanced, the effects on the actor's behavior may be no different than they would have been under simple accountability.

Literature Review

Research examining the effects of accountability has been performed in several contexts. This review draws from both the social psychology literature and the auditing literature to provide a reasonable background for examining conflicting accountability.

Social Psychology

Two streams of research in social psychology are particularly relevant for developing predictions regarding the effects of conflicting accountability on audit

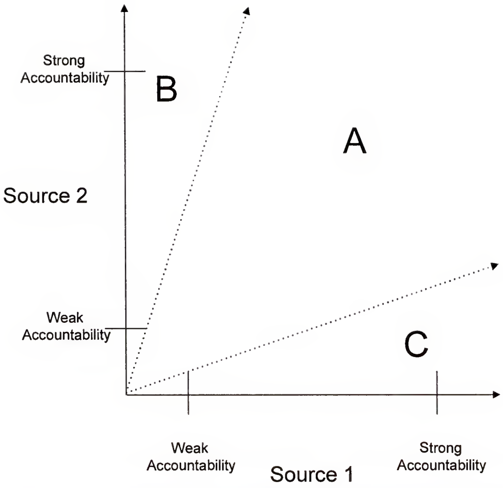

Figure 3. Conflicting accountability.

decisions. One of these streams directly examines the effects of accountability on attitudes and decision making. The other is a research program examining conflict resolution. Conflict resolution research provides particularly relevant insights for the present study because auditors making decisions under conflicting accountability face significant costs for not being able to satisfy each and every accountability source. If auditors are motivated to satisfy all parties in their decision settings, then the process of making audit decisions may be similar to the formal negotiation processes found in this literature (see Gibbins et al. 1998).

Accountability research

Accountability research suggests that the specific effects of accountability are contingent upon characteristics of the decision environment (Tetlock 1985a; Tetlock 1992). The characteristic most often examined in this body of research is whether the decision maker knows the views or preferences of the accountability source (e.g., Cummings and Anton 1990; Schlenker 1986; Tetlock 1992). Results have been quite consistent. People *who know the preferences of the accountability source* tend to rely on relatively simple processing to make decisions, and tend to adopt attitudes or make decisions that are consistent with the attitudes or preferences of the source. People *who do **not** know the preferences of the accountability source* tend to rely on relatively complex processing to make decisions, and tend to adopt attitudes or decision options that are less extreme, or more middle-of-the-road. Complexity of processing is often measured directly in these studies by having subjects record their thoughts and then analyzing the thoughts listings for integrative complexity (e.g., Tetlock 1983a). But complexity of processing is often inferred by examining whether subjects' attitudes or decision choices are biased toward the source's preferences (e.g., Pennington and Schlenker 1999) or by examining whether processing-related biases are affected (e.g., Tetlock 1983b). When individuals display bias toward the source's preference, processing is assumed to be relatively *simple*, primarily consisting of the *acceptability heuristic*, where individuals simply adopt attitudes or decision options most likely to be acceptable to the accountability source. Using this heuristic relieves the cognitive miser from having to process all available information to develop the “correct” attitude or to adopt the “best” option. On the other hand, when individuals display more middle-of-the-road attitudes, or when well-documented processing biases are significantly altered, processing is assumed to consist of relatively *complex* processing, where individuals exert more cognitive effort to consider both sides of an issue and to pay more attention to the available information.

Adelberg and Batson (1978) placed student subjects in a situation where they were part of a fictitious government organization responsible for allocating a limited amount of grant money (i.e. there was not enough to go around) to several needy students based on their individual circumstances and needs. Subjects who were held accountable to resource providers tended to be relatively frugal (in total) with the resources, whereas subjects who were held accountable to resource recipients tended to be relatively generous (in total). Both of these behaviors led to considerable amounts of wasted resources, leading the authors to conclude that the behaviors were caused by accountable individuals being more concerned with pleasing their constituencies than with making the best allocations possible based on the available information. This conclusion was supported by the fact that non-accountable subjects in a control group made better allocations than either of the accountability groups in terms of the proportion of the budget that was considered wasted.

In the first of many studies examining accountability effects, Tetlock (1983a) had subjects write down their thoughts and feelings regarding certain controversial issues after informing them of the attitudes of the people who would be evaluating their thoughts. These thoughts listings were analyzed for integrative complexity, or the degree to which subjects considered both sides of the issue. Tetlock found that subjects accountable to sources with known views (known sources) showed no more integrative complexity than non-accountable subjects, and that they tended to adopt attitudes that were consistent with the source. On the other hand, subjects accountable to sources with unknown views (unknown sources) showed a significant increase in integrative complexity, and had attitudinal scores that fell between those of the subjects accountable to each of the known sources (i.e., middle-of-the-road). Tetlock concluded that the accountability-related attitude shifts they found when there was a known source were caused by individuals using the acceptability heuristic, and that the more moderate attitudes they found when there was an unknown source were caused by individuals examining both sides of the issue more carefully.

Tetlock and his colleagues (Tetlock et al. 1989) replicated these findings in a study examining accountability effects both before and after attitude commitment. Student subjects held accountable to a known source prior to attitude commitment again displayed no more integrative complexity in their thoughts listings than their non-accountable counterparts, but tended to shift their attitudes toward those of the source. As in the previous study, subjects held accountable to an unknown source prior to attitude commitment showed a significant increase in integrative complexity, and had attitudinal scores that fell between those of the subjects accountable to each of the known sources. Follow-up analyses revealed additional insights into the observed behaviors. It appears that attitude shifts for subjects accountable to known sources may have been at least partially determined by differences in information search and/or evaluation bias rather than simple applications of the acceptability heuristic. When compared to non-accountable subjects or subjects accountable to unknown sources, subjects accountable to a liberal source tended to list more liberal thoughts and fewer conservative thoughts, while subjects accountable to a conservative source tended to list more conservative thoughts and fewer liberal thoughts. These results are consistent with individuals displaying self-serving bias in their decision process (Messik and Sentis 1979).

Pennington and Schlenker (1999) pursued these findings in a recent study by specifically examining whether accountability to known sources affects attitude shifts and decision choices because people use the acceptability heuristic (reporting stage) or because they are subject to self-serving bias (processing stage). In this study, student subjects were asked to decide how to punish a fellow student who had been caught cheating. They were informed that there was no doubt about the cheating, and that their decisions would be adopted by the university. The results showed that subjects accountable to the student tended to be relatively lenient, while subjects accountable to the honor court or to the professor making the charges tended to be relatively harsh. The authors in this study manipulated accountability by informing subjects that they would need to justify their decisions in face to face meetings with either the student, the professor, or a representative of the honor court. After allowing all subjects to read the evidence in the case--but prior to subjects stating their decisions--the authors informed some subjects that the meeting with the source had been cancelled but that they should go ahead with the decision. All subjects then recorded their decision. The results revealed that subjects who were accountable during information search and evaluation but then did not have to justify their decisions to a source continued to display a propensity to make decisions that were consistent with the source's preferences. Although this effect was significant, it was not as large as for subjects who also needed to justify their decision. This suggests that while the propensity to make decisions consistent with the source's preferences may result from people using the acceptability heuristic, it may also result from people framing decisions differently under accountability, such that the resulting information search and evaluation is biased.

The above studies support the hypothesis that when decision makers are accountable to sources with known preferences, they tend to use relatively simple processing that may be described by the acceptability heuristic and/or by self-serving bias. Either way, the relatively simple processing generally results in people adopting options or attitudes consistent with the source to whom they are accountable.

Other studies more specifically examine accountability effects when the source's preferences are unknown. McAllister and his colleagues (McAllister et al. 1979) proposed that people choose their decision processing strategies by using cost/benefit analyses designed to help them maximize their subjective expected utility. According to this model, if characteristics of the decision setting increase the importance (benefits) of making a good decision, decision makers should be more willing to increase their cognitive effort to make the decision. According to McAllister and his colleagues, accountability is one of the characteristics that increases the importance of a decision (see Beach and Mitchell 1978). The authors tested their hypothesis using a very simple approach wherein they simply presented subjects with a business decision, along with descriptions of four increasingly complex decision strategies, and then asked them to indicate which strategy they would use to make the decision. Results showed that subjects accountable to an unknown source tended to select significantly more complex strategies than their non-accountable counterparts.

Chaiken (1980) examined accountability effects using a persuasion perspective. Chaiken also assumed decision makers to be cognitive misers and hypothesized that they would only use systematic (complex) processing if sufficiently motivated to do so. She hypothesized that without sufficient motivation, decision makers would use heuristic (simple) processing. Using accountability to motivate her subjects, Chaiken provided subjects with different types of cues during a decision. According to the persuasion perspective, people who use systematic processing are persuaded more by central cues (e.g., the number of arguments in a message), while people who use heuristic processing are persuaded more by peripheral cues (e.g., the attractiveness of the message source). Results indicated that accountable subjects' decisions were more affected by central cues, whereas non-accountable subjects' decisions were more affected by peripheral cues. Chaiken concluded that accountability leads people to use more systematic processing.

Using a lens-model approach, Hagafors and Brehmer (1983) provided subjects with a multiple-cue probability learning task and then measured their application of judgment policies. The authors found that when task predictability was low and no feedback was provided, subjects who were required to justify their judgments to unknown sources were significantly more consistent in their applications than non-accountable subjects. The authors interpreted these results to mean that justification (accountability) motivates people to use more analytical processing while non-accountable people use more intuitive processing. The increased depth of processing motivated by accountability enables accountable people to be more aware of their processing strategies, which allows them to replicate the strategies across multiple cases resulting in greater consistency.

The Tetlock studies discussed earlier (Tetlock 1983a; Tetlock et al. 1989) showed not only that decision makers accountable to known sources used relatively low levels of integrative complexity in their decision processes, but also that decision makers accountable to sources with unknown views used relatively high levels of integrative complexity in their decision processes. Tetlock and his colleagues followed up on these studies by completing a series of studies examining whether the complex processing induced by such accountability would reduce or eliminate biases that were related theoretically to processing deficiencies. Tetlock (1983b) assumed primacy effects to be caused by less attention being paid to later cues than to earlier cues in a sequence. He provided subjects with a sequence of cues supporting a defendant's guilt or innocence and then asked them to assess the defendant's guilt or innocence. While non-accountable subjects displayed significant primacy effects in their decisions, subjects who expected to justify their decisions to a source with unknown views showed no order effects at all. Accountable subjects also scored significantly better in a free-recall task after the experiment, providing additional support that accountability to unknown sources increases depth of processing.

Tetlock (1985b) and Tetlock and Kim (1987) used similar logic to examine the effects of accountability on over-attribution effects and use of the availability heuristic respectively. The primary assumption being made in each of these studies was that the specified judgment "deficiencies" result from inadequate attention being paid to available information. In the first study, Tetlock (1985b) found that accountability virtually eliminated over-attribution effects. In the second study, Tetlock and Kim (1987) found not only that accountability significantly reduced subjects' use of the availability heuristic, but once again found that it led to more integrative complexity in their processing.

Using similar logic, Tetlock and Boettger considered that accountability might also aggravate decision biases that are caused by paying too much attention to irrelevant information. In one study, Tetlock and Boettger (1989) hypothesized that accountability would exacerbate the dilution effect. The results of their study were consistent with this hypothesis, specifically showing once again that accountable subjects displayed more integrative complexity in their decision processes, and then showing that this was associated with increased effects of irrelevant cues on subjects' decisions. In another study, Tetlock and Boettger (1994) hypothesized (as did Curley et al. 1986) that accountability leads to ambiguity avoidance, and should thus lead to an amplification of the status quo effect. Subjects in this study were required to make decisions about whether a new drug should be approved for the market. The drug would save many lives, but would also put some people at risk. Accountable subjects displayed higher levels of integrative complexity in their thoughts listings, were significantly less likely to accept the new drug, and were more likely to use avoidance tactics to procrastinate the risky decision even though doing so would cost lives that otherwise could have been saved. This latter finding is important because it provides evidence that accountable decision makers may actively use self-serving tactics as part of the decision process.

The above studies are clearly consistent with decision makers who are accountable to sources with unknown views and preferences being more likely to use complex decision processing (e.g., more attention, more cognitive effort, etc.) to make their decisions. Importantly, they also suggest that such decision makers are more likely to adopt more moderate attitudes or options, and that they are more likely to use tactics to avoid making risky decisions.

The above review includes a considerable number of studies examining the effects of accountability to a single source. I am not aware of any study in this line of research that specifically examines the effects of conflicting accountability on attitudes and decisions. However, some insights can be gleaned from Adelberg and Batson (1978), who did have some subjects who were accountable to multiple self-interested resource recipients simultaneously. These subjects were not only more generous with resources (consistent with the preferences of resource recipients in general), but they also tended to allocate resources evenly among the recipients--even though such a strategy led to no one receiving sufficient resources to meet their individual needs, resulting in large amounts of wasted resources. Apparently, these subjects felt it was more important to appear "fair" to multiple constituencies than to be effective, perhaps because such behavior is easier to justify to accountability sources with conflicting preferences (see Bazerman 1998). As will be shown in the next section, this result may also be described as a distributive solution to a conflict setting.

Conflict resolution research

The conflict resolution literature examines how individuals facing conflicting sources of pressure resolve one or more issues through "negotiation" behaviors.[2] One of the products to come out of this literature is the dual concern model of conflict resolution (see Pruitt and Carnevale 1993; Rubin et al. 1994), which predicts the behavior of individuals in conflict settings--where one or more issue must be resolved, but where each party prefers a different outcome along a continuum of possible outcomes (see Bazerman 1998). According to this model (see Figure 4), persons in a conflict situation have different levels of concern for themselves and for the other party. People who have high concern for "self" and low concern for "other" generally try to resolve conflict by persuading the opposing party to move toward their own position on the continuum. Such behaviors are called *contending* strategies. On the other hand, people who have low concern for "self" and high concern for "other" generally try to resolve the conflict by shifting their own position toward the opposing party's position on the continuum. Such behaviors are called *yielding* strategies. These two situations resemble decision making under simple accountability, with contending and yielding strategies appearing as forms of the acceptability heuristic. Indeed, the dual concern model can be superimposed on the conflicting accountability diagram (Figure 3) with yielding strategies being used in section B and contending strategies being used in section C. This places people who have high concern for both "self" and "other" (conflicting accountability) in section A, where they are predicted to spend more effort

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[2] Negotiation is "a discussion between two or more parties with the apparent aim of resolving a divergence of interests (incompatible preferences among a set of available options) and thus escaping social conflict" (Pruitt and Carnevale 1993, 2).

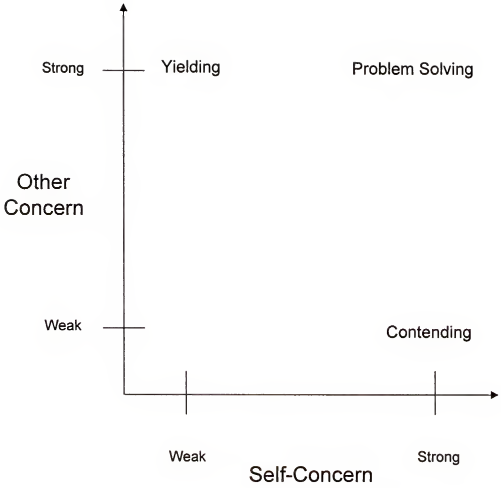

Figure 4. The dual concern model.

searching for solutions that are more acceptable to both parties. Such behaviors are called *problem-solving* strategies, and generally involve increased levels of cognitive effort and a search for distributive and integrative tactics (Carnevale 1985).

Thorough reviews of the negotiation literature are provided by Carnevale and Pruitt (1992) and Pruitt and Carnevale (1993). However, several studies relate specifically to accountability affects on negotiation, and to the dual-concern model itself. Concern for *self* was examined in an early but important study by Benton and

Druckman (1974) where the authors had individuals negotiate on behalf of a constituent (simple accountability). Subjects were told either nothing about the constituent's expectations, that the constituent expected them to be compromising and cooperative, or that the constituent expected them to be hard and aggressive. The results showed that individuals who were not accountable to their constituents (control group) tended to have relatively low goals for the negotiation and tended to yield to opponents' offers. Similarly, individuals accountable to cooperative constituents also tended to yield to opponents' offers. However, individuals accountable to competitive constituents or to constituents with unknown expectations tended to have significantly higher goals for the negotiation and were more likely to reject opponents' offers. The authors interpreted these results as accountability motivating individuals to behave according to source expectations or according to assumed source expectations (in the latter case) during negotiations.

Concern for *others* was examined more closely in a study by Fry et al. (1983) where the authors compared negotiation behaviors for dating couples versus stranger couples (simple accountability). Dating couples were assumed to have relatively high levels of concern for "other" compared to stranger couples, and for this reason were hypothesized, (1) to have lower personal aspirations during the negotiation process, and (2) to yield more quickly to opponent's offers, thus missing available opportunities to produce higher joint profitability through problem solving. Results were consistent with both of these hypotheses.

A series of three studies used an approach similar to that used in Fry et al (1983) to test the three important conditions in the dual-concern model (Pruitt et al. 1983; Ben-

Yoav and Pruitt 1984a, b). These studies had pairs of participants negotiate the prices of three different items during an actual face to face encounter. Profit schedules for the three items provided for the possibility of logrolling--that is, the most profitable item was different for the buyer and the seller. Despite subtle differences in each of these studies (e.g. the method of "concern" manipulation), the results were the same in each. However, the commonalties with the accountability literature are best illustrated by the first Ben-Yoav and Pruitt study (1984a). Some subjects in this study had high concern for 'self' because they were made accountable to a group of powerful constituents who would personally decide how much each subject would be paid. Some subjects had high concern for 'other' because they were led to believe that they would be performing subsequent activities with the other party, and that cooperation would be beneficial in those activities. The results demonstrated that subjects with high concern for self (other) but low concern for other (self) tended to use contending (yielding) strategies, even though doing so resulted in lower joint profitability. However, subjects who had high concern for both 'self' and 'other' achieved the highest levels of joint profitability. Because of the special design of the case, this suggested that such subjects were using more problem-solving activities than any of the other groups--specifically by using logrolling tactics (see also Carnevale and Isen 1986).[3]

In summary, the conflict resolution literature is consistent with the accountability literature in showing that people who feel strong concern for, or accountability to, a source with known preferences tend to resolve conflict in favor of the source's preferences. However, the conflict resolution literature also suggests that that under conflicting accountability, people may look for additional tactics that may involve the manipulation of one or more issues to develop distributive or integrative solutions to the conflict.

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[3] Logrolling is a specific type of negotiation behavior that is described by the negotiator proposing a solution that trades off important issues. That is, each party wins on the issue they value most.

Auditing

Auditing researchers have also begun to examine accountability effects in audit settings. The results in the audit studies have been consistent with the results found in the social psychology literature, but have also begun to address the possibility of conflict in audit settings. First, accountable auditors *who know the preferences of the accountability source* tend to make decisions that are consistent with the source's preferences, implying the use of simple decision heuristics such as the acceptability heuristic. Quilliam (1991) had audit seniors make a decision regarding the valuation of some of the client's inventory, where the audit manager favored writing the inventory down to scrap value but the client did not. Seniors who felt accountable to the manager were inclined to require an audit adjustment, whereas seniors who felt accountable to the client were inclined to leave the inventory at cost. These results suggest that subjects may have used the acceptability heuristic to make their decisions. Indeed, analyses of integrative complexity revealed that auditors accountable to a single known source showed no more integrative complexity than non-accountable auditors.

In a similar study, Buchman et al. (1996) had audit seniors decide whether a client with a material contingency should receive a qualified or unqualified opinion in the auditor's report.[4] Subjects who were accountable to the client (partner) were told that they would discuss the case with a vice-president of the client (partner) within a week. Although subjects were not explicitly told the preferences of the sources, auditors would certainly know that an unqualified opinion would normally be easiest to justify to the client, whereas a more conservative judgment would normally be the easiest to justify (least risky) to the partner. As expected, seniors accountable to the client preferred unqualified opinions, whereas seniors accountable to the partner preferred qualified opinions.

Hoffman and Patton (1997) found similar results using an audit risk assessment task--that is, auditors who were accountable to their superiors for the risk assessment task tended to be more conservative than non-accountable auditors. As with Buchman et al. (1996), subjects in this study were not told the preference of their superiors. The results would suggest, however, that auditors assumed a conservative assessment to be easier to justify to their superiors, and proceeded to use a form of the acceptability heuristic. Unfortunately, complexity of processing was not directly examined in either of these studies. However, Hoffman and Patton did find that senior auditors who were accountable to their superiors did *not* display more dilution effect than non-accountable seniors, suggesting that subjects accountable to a known source did not increase the complexity of their information processing.

Peecher (1996) appears to have realized that in the absence of specific additional information, auditors make assumptions about the preferences of their superiors. So in this study, Peecher manipulated the preferences of subjects' superiors. Auditor subjects were given an analytical review task to perform, which included responses from the client's management to hypothetical inquiries by the auditor. Some auditors were told that superiors in their firm believed auditors to be too skeptical of information obtained from client inquiries, whereas others were told that superiors in their firm believed auditors to be too trusting of information obtained from client inquiries. The results showed that auditors who were accountable to skeptical superiors tended to be more skeptical of clients' explanations than were auditors who were accountable to trusting superiors, again supporting the use of the acceptability heuristic by auditors accountable to known sources.

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[4] This study was performed prior to the issuance of SAS 59.

Finally, Hackenbrack and Nelson (1996) examined whether auditors' incentives affect their interpretation of vague accounting standards. Subjects were given a case wherein they had to select the most appropriate accounting treatment for their client. Subjects were informed of the treatment preferred by the client, and were told that the treatment would allow the client to avoid being in violation of its debt covenants. Subjects were provided with the standards and were required to come up with the correct treatment based on their interpretation of the standards. The results suggested that subjects tended to interpret the standards in favor of the treatment preferred by their client. Although this study was not a formal study of accountability effects, it does suggest that motivational biases may occur during information evaluation rather than by simple application of the acceptability heuristic.

Second, auditors *who do not know the preferences of the accountability source* tend to use more complex processing to make their decisions, and tend to use more decision tactics as part of the decision process. Ashton (1990) examined this hypothesis by having subjects perform a bond-rating task wherein he measured the effects of several performance pressures (and the use of a decision aid) on a series of bond-rating decision tasks. Among the variables Ashton manipulated was accountability (justification)--that is, some auditors were required to write down justifications for their decisions. Ashton's results revealed that auditors who were accountable for their decisions tended to make more accurate bond-rating assessments (i.e. made more correct assessments and displayed less variation) than their non-accountable counterparts.

In a similar study, Johnson and Kaplan (1991) had auditors make a series of judgments regarding risk of obsolescence of some inventory items. However, since there were no "correct" answers for the task in this study, the authors used judgment consensus to measure accuracy. As in the Ashton study, the authors found that accountable auditors made more accurate risk assessments (higher consensus) than non-accountable auditors. Johnson and Kaplan also found that accountable auditors had higher self-insight than the control group.

It is important to note that both of these studies manipulated accountability by making some subjects accountable to the researcher, rather than to a source whose views and preferences were known or could be assumed. The conclusion drawn in both studies was that accountability to unknown sources motivates auditors to use more complex decision processes (e.g., more cognitive effort, more attention, fewer heuristics). Of course, this conclusion assumes accuracy and consistency to be related to complexity of processing (see Bettman et al. 1990; Libby and Lipe 1992). In neither case was complexity actually measured.

Kennedy (1993) adopted Tetlock's perspective that accountability to an unknown source should increase the complexity of processing, thereby reducing or eliminating decision biases cause by insufficient attention being paid to information cues (e.g., Tetlock 1983b). She hypothesized that accountability would thus reduce or eliminate recency effects demonstrated previously in the auditing literature (e.g., Ashton and Ashton 1988). In two experiments, Kennedy provided subjects with positive and negative pieces of information regarding a client's ability to continue as a going concern and then had them make an assessment. Kennedy performed one experiment using MBA students, and found that non-accountable students showed recency effects while accountable students did not. Results of a second experiment using auditors was not as clear, however, as neither accountable nor non-accountable auditors displayed order effects.

Finally, Koonce et al. (1995) examined the effects of accountability on auditors' use of justifications. The authors hypothesized that if auditors who are accountable to an unknown source use more complex processing, they should be more likely to "cover all the bases", or examine evidence supporting both sides of an issue. The review process was used to invoke accountability. Subjects were required to complete an analytical review task, and to write a memo explaining their decision in the task. Accountable subjects were informed that their memos would be reviewed. The authors of this study found several indicators that accountability does increase the complexity of processing. Accountable subjects reported greater motivation and effort, and took significantly longer than the non-accountable auditors to complete the task. Accountable subjects also included significantly more justifications than non-accountable subjects, however, the types of justifications provided was not different between the two groups.

Auditing research has recognized the existence and importance of conflicting accountability in audit settings (e.g., Buchman et al. 1996; Koonce et al. 1995; Messier and Quilliam 1992). However, only Gibbins and Newton (1994) have directly examined the effects of conflicting accountability on auditors' behavior. The authors in that study did so by circulating a questionnaire to CPAs asking them to describe recent situations in practice where they were accountable to multiple sources. The questionnaire elicited details of the complex-accountability circumstances, as well as the auditors' responses to those circumstances. Several interesting results came out of this study. First, when auditors were accountable to multiple sources with conflicting preferences, they tended to delay their decisions in order to search for more information, and to think more deeply about the decision. This effect was especially pronounced when the pressure from sources was strong. Second, under conflicting accountability, auditors often used decision tactics, including negotiation-type tactics such as compromise.

The increased information search and increased complexity of processing found in the above study are intuitively reasonable responses to decision making under conflict, as auditors would need to examine evidence supporting both sources in greater detail in order to defend their decision to both sources. On the other hand, negotiation is an interesting, but not so obvious response--at least in the accountability literature. However, auditing research has begun to examine negotiation as a legitimate response to conflict in the auditor-client-third party relationship. Antle and Nalebuff (1991) have suggested that negotiation is a natural part of the auditor-client relationship--especially in those instances where the client initially proposes a set of financial statements which the auditor cannot accept. In such cases, the financial statements essentially become a joint product of the client and the auditor. In the end, a compromise is usually found, the financial statements are adjusted, and the auditor issues an unqualified opinion on the revised financial statements. The model proposed by Antle and Nalebuff proceeds to show analytically that the auditors best response to audit issues uncovered during the audit is to make conservative proposals to the clients regarding their resolution. This provides the auditor room to negotiate and still arrive at a position they can concur with.

In a more recent paper, Gibbins et al. (1998) also viewed the financial statements and auditor's report as joint products of the auditor and the client. This is especially true once the client proposes a set of financial statements that the auditor cannot accept. According to Gibbins and his colleagues, at that point, negotiation is the expected behavior because both parties generally desire to maintain the relationship. The authors proceed to develop a theoretical characterization of this auditor-client negotiation, and then present data gathered in a comprehensive questionnaire regarding their characterization of the negotiation process. Particular interesting findings from this questionnaire include the fact that negotiation appears to be very common in audit settings, often resulting in resolutions that lie somewhere between the original positions of the auditor and the client, usually resulting in the issuance of a clean opinion, and seldom resulting in the dismissal of the auditor.

Summary

In summary, the literature suggests that under simple accountability to a known source, decision makers--including auditors--tend to use relatively simple processing, which may include the use of the acceptability heuristic and/or biased information search and evaluation. This tends to lead decision makers--including auditors--to adopt options favored by the single known source. The literature also suggests that under simple accountability to an unknown source, decision makers--including auditors--tend to use more complex processing, which may include examining both sides of the issue more thoroughly, as well as searching for justifications. Although little is directly known about the effects of conflicting accountability, the literature suggests that conflicting accountability may motivate the use of more complex processing similar to the observed behavior under simple accountability to an unknown source. This makes sense, as in each case the decision maker must examine both sides of the issue in order to be able to justify the ultimate decision to each source. The conflict-resolution literature also emphasizes the use of problem-solving behaviors, which generally entail additional cognitive effort, as well as the search for distributive and integrative solutions to the conflict. There is also some evidence that such behaviors may be appropriate, and may be quite common in audit settings.

CHAPTER 3
THEORY AND HYPOTHESIS DEVELOPMENT

This purpose of this chapter is to develop specific hypotheses about how conflicting accountability affects auditors' decision behaviors. As noted earlier, the underlying premise in this study is that accountability affects the decision process itself. For this reason, a decision model is presented and used in conjunction with the results of previous studies to develop a series of hypotheses regarding accountability effects. These hypotheses are tested in chapters 4 and 5.

A Model of Decision Making

This first section presents a descriptive model of decision making to be used as a framework for examining audit decisions (see Figure 5). This model is adapted from image theory (Beach 1990), which has been proposed as a descriptive model for many types of decisions, including audit decisions (Asare and Knechel 1995; Beach and Frederickson 1989). Image theory has a great deal of intuitive appeal, and has found increasing empirical support in the social psychology literature (e.g., Beach 1993; Beach and Strom 1989; Potter and Beach 1994a, b; Rediker et al. 1993; van Zee et al. 1992; Waller and Mitchell 1984). The adapted model presented in Figure 5 specifically

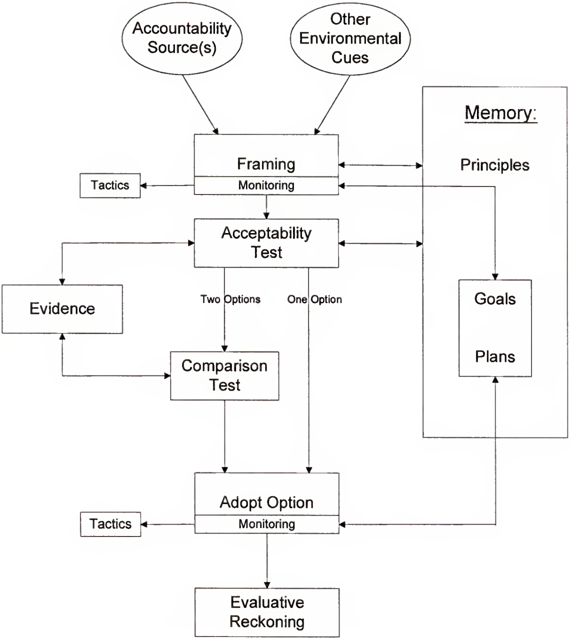

Figure 5. A descriptive model of decision making.

incorporates accountability and provides for decision makers' use of decision tactics in certain situations.

The judgment and decision making literature recognizes the contingent nature of decision making--namely that the specific strategy a decision maker uses during a particular decision event is contingent upon characteristics of the decision maker and characteristics of the decision task (e.g., Beach and Mitchell 1978; Payne 1982). Common frameworks used to explain this behavior include, (1) cost/benefit frameworks--where individuals are depicted as cognitive misers who use relatively simple decision strategies unless a mental cost/benefit analysis indicates that the benefits of using more complex strategies outweigh the costs; and (2) perceptual frameworks--where the way individuals frame decisions determines directly which decision strategies they use (Payne 1982; Payne et al. 1992). Studies using these two frameworks have generally assumed decision events to include multiple options from which decision makers must choose (choice). However, Beach and his colleagues observed that many decisions do not involve multiple options at all, but instead only involve a single option (Beach 1990). In response to this observation, Beach and his colleagues proposed image theory as a descriptive model of decision making. Image theory allows for single-option decisions as well as choice, and attempts to describe what decision makers actually do, rather than what they "ought to" do. Image theory may be particularly useful for audit research since many types of audit decisions involve a single option (see Beach and Frederickson 1989).[1]

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[1] Examples include whether to accept a new audit client, whether to rely on internal controls, whether to allow the client to use a certain accounting treatment, whether to accept an account balance as stated, and whether to give an unqualified report (see Waller and Felix 1984).

The decision model presented in Figure 5 is based on image theory. It recognizes that there are two types of decisions--those that are framed in terms of a single option ("Is the option acceptable?"), and those that are framed in terms of multiple options ("Which option is best?"). These two decision types differ fundamentally because they usually involve different types of processing. The model also emphasizes the important role that goals play in decision making (Beach 1990; see also Slade 1994) by addressing why people make decisions in the first place, and by noting that decisions are often directed by individuals' efforts to reach their goals. This is important because it will be shown that accountability affects auditors' decision processes through its ability to affect the importance and priority of their decision goals.

The decision process depends heavily upon characteristics of the decision maker, including the decision maker's knowledge (Beach and Mitchell 1978). Decision makers store their knowledge in memory structures called *schemata* (Beach 1990). Schemata are developed over time through personal experiences and other forms of learning. At any point in time, a person's schemata represent a perspective of the world, and a vision of what constitutes properly ordered courses of events. Indeed, well-developed schemata help to distinguish the expert from the novice (e.g., Danos et al. 1984; Libby and Frederick 1990).

Three types of schemata are fundamental to decision making--*principles*, *goals*, and *plans* (Beach 1990; Beach and Mitchell 1987). *Principles* are a decision maker's values, ideals, beliefs, morals, and ethics. They serve as rigid standards for establishing the "rightness" or "wrongness" of certain behaviors, and generally limit a decision maker's consideration set to "appropriate" options.[2] *Goals* are a decision maker's set of desirable future states and events. They can be concrete events such as getting a promotion, or they can be abstract states such as being "successful". *Plans* are templates, or sequences of behavior for reaching one's goals. Goals may be connected in memory to several plans, each with its own individual likelihood for success. In a decision, potential plans are called options.

When a person encounters a decision event, salient cues from the environment help him to identify and retrieve relevant schemata from memory regarding the decision. This process is called *framing*. Framing gives a decision maker "perspective" for a decision by allowing him to identify and prioritize decision goals and by identifying possible plans for reaching those goals. It also results in the decision being viewed either, (1) as a question of whether to adopt a given option in an effort to reach one or more important goals, or (2) as a question of which option to adopt in order to reach one or more important goals. From a decision maker's perspective, framing should promote effective (increased likelihood of reaching decision goals) and efficient (reduced cognitive effort) decision making. However, different cues in the environment may be salient in different situations. This may lead to different goal prioritization which may lead to different plans being generated or retrieved. Thus, framing can lead to different perspectives for the same decision, which in turn can lead to different decision processes and different decision outcomes (Beach 1990; Tversky and Kahneman 1981, 1986). There are substantial bodies of research demonstrating the pervasiveness of framing effects in both social psychology (e.g., Anderson and Pichert 1978; Baldwin et al. 1990; Wagenaar and Keren 1986) and auditing (e.g., Ayers and Kaplan 1993; Emby 1994; Emby and Finley 1997).

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[2] The existence of principles provides that decision makers are always accountable to themselves, a notion that is usually ignored in accountability research (Schlenker 1986), but which may be important in auditing because of the high standards held by individual CPAs and the profession.

Once a decision maker has framed the decision, he proceeds via two mechanisms--*acceptability tests* and *comparison tests*.[3] An *acceptability test* is used to examine a single option to determine its acceptability in terms of the principles and goals accessed by the decision maker during framing. Acceptability tests involve noncompensatory processing, wherein the decision maker searches for incompatibilities between the option in question and his principles and goals. If the option is found to be sufficiently incompatible with these criteria, it is rejected and is no longer considered as a candidate for adoption (see Beach and Strom 1989). However, if the option is not found to be incompatible with one's principles and goals, it is accepted as a candidate for adoption.[4]

A *comparison test* is used to examine multiple options simultaneously to identify the "best" from among them. Comparison tests comprise the decision behaviors traditionally associated with choice in the judgment and decision making literature (see Beach 1990). Comparison tests may involve noncompensatory processes (e.g., elimination-by-aspects strategy), but may also involve compensatory processes (e.g., different forms of utility maximization strategies) wherein attributes of each option in the consideration set are compared and their values aggregated to find the "best" option. Compensatory processing is by definition more complex than noncompensatory processing (see Beach and Mitchell 1978).[5]

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[3] In Beach's presentation of image theory (Beach 1990), these tests are called the *compatibility test* and the *profitability test*. However, these terms may have other connotations in accounting and auditing research. To avoid confusion, the present study refers to these as the acceptability test and the comparison test.

[4] Research has consistently shown that acceptability tests concentrate on attributes that are *not* compatible with test criteria rather than on attributes that are compatible (e.g., Beach and Strom 1989; Beach et al. 1996). Once a rejection threshold is reached, consideration of the option ends.

The types of test used during a decision depend upon how the decision is framed. If a decision is framed in terms of a single option, a single acceptability test is generally sufficient to complete the decision. The decision maker simply performs an acceptability test on the option, and if it is not found to be unacceptable, it is adopted. If it is found to be unacceptable, it is rejected in favor of the status quo.[6] On the other hand, if a decision is framed in terms of multiple options, multiple acceptability tests are used to screen the options such that only acceptable ones are considered further (Beach 1993). If through this screening process, more than one option is found to be acceptable, the decision maker will proceed to use a comparison test to choose from among the pool of acceptable options. The comparison test identifies the "best" option in the consideration set, which the decision maker generally adopts.

As noted earlier, a decision maker's goals have a significant impact on the decision process. First, during framing goals are identified and prioritized, and associated plans are generated or retrieved from memory. These plans become the options from which the decision maker will choose. Second, goals are used during acceptability tests as criteria against which to compare an option for general acceptability. Finally, since reaching goals is an important part of decision making, the decision model includes a behavior called *monitoring*, where a decision maker tracks his progress toward his decision goals. Through monitoring, a decision maker becomes aware as early as possible of decision goals in danger of not being reached--a situation called a *predicament* (Schlenker 1986). According to the model, if a decision maker identifies a predicament, and if the decision goal is important enough, the decision maker can try to alter or augment the decision process by using one or more decision tactics to increase the likelihood of reaching the goal (Gibbins 1984; Schlenker 1986).

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[5] Although definitions of complexity of processing vary throughout the literature, the fundamental characteristic of complexity appears to be increased cognitive effort. In a study of the effects of accountability on complexity of thought (Tetlock 1983a), Tetlock's research question was specifically stated as, "Do people put more effort or cognitive work into making judgments and decisions for which they feel personally accountable" (74). And Johnson and Kaplan (1991) describe the complexity of processing brought about by accountability as "attend[ing] to information more thoroughly and process[ing] information more vigilantly" (97). See also Payne et al. (1992), Bettman et al. (1990), and Libby and Lipe (1992).

[6] Following the status quo requires no additional processing. It is simply the default behavior that occurs if the single option being considered is rejected, or if no decision is encountered at all (Beach 1990). To use an analogy, if you drive down the highway and approach an exit, the decision to turn off is essentially a question about whether to adopt the option of turning off. If that option is rejected, you simply continue down the highway. Continuing down the highway is the status quo "option."

Accountability in the Model

An accountability source is one of the many possible environmental cues decision makers may use to frame a decision. Because of this, accountability can be instrumental in determining what a decision maker's goals are, which plans are considered for adoption, which plans are found to be acceptable, and whether decision tactics are utilized. The model assumes that accountability sources are frequently salient, and in many cases one of the most salient cues in the decision environment (Schlenker 1986; Tetlock 1985a). When an accountability source is salient during a decision event, the decision maker is likely to give a high priority to the goal of maintaining the identity images *important to that source*. This may lead the decision maker to frame the decision in terms of, (1) whether he can adopt the option consistent with the prescriptions required to maintain those images, or (2) which option to adopt in order to be most consistent with the prescriptions required to maintain those images. In other words, accountability may directly determine whether a decision is framed in terms of a single option, or in terms of multiple options.

Accountability can also affect the decision process through its impact on monitoring and tactics. First, during framing, a decision maker will have identified his decision goal of maintaining certain identity images as well as the prescriptions required to do so. At that point, he may already be aware that he will not be able to follow all the prescriptions necessary because of complexities in the decision event itself (e.g. conflicting goals or prescriptions). Since this is early in the decision process, it may motivate the decision maker to initiate "offensive" tactics to increase the likelihood of maintaining his images. Common offensive tactics include searching for, or developing, new options that might adequately satisfy all parties involved in the conflict (Pruitt 1983). Such options can be classified as either distributive or integrative solutions. *Distributive solutions* involve a single issue. They are "middle-of-the-road" solutions that leave neither party as well off as it wanted to be, nor as bad off as it could have been. By finding a distributive solution, a decision maker may be able to maintain important identity images--at least at a more acceptable level. Compromise is the chief type of distributive solution. *Integrative solutions* require multiple issues. They often involve the manipulation, or "trading off" of issues in order to assemble a portfolio of issues that satisfies all parties. By finding an integrative solution, a decision maker may be able to maintain two separate sets of identity images.[7] Indeed, in some cases a decision maker may even create issues in order to generate integrative solutions. Negotiation tactics such as these are clearly adaptable to audit settings (Antle and Nalebuff 1991; Gibbins et al. 1998), as professional judgment, accounting estimates, materiality, vague standards, and multiple issues all provide auditors with a great deal of flexibility when facing predicaments.

Second, once a decision maker adopts an option (or continues with the status quo), he will be cognizant of whether his behavior was consistent with the prescriptions required to maintain important identity images. If it was not, the decision maker may be motivated to initiate "defensive" tactics to try to "soften the blow" of not following prescribed behaviors. Defensive tactics include searching for justifications and excuses, the use of apologies, and the use of various avoidance tactics. According to Schlenker, many of these tactics involve attempts by the actor to weaken the links in one of the accountability pyramids, thereby reducing the level of personal responsibility for the decision (Schlenker 1986). For example, if someone performs poorly during an event (in terms of following prescriptions), he can increase his chances of maintaining positive identity images if he can convince the source that the expectations for the project were too high (identity-prescription link), that it was not clear what was supposed to be done (event-prescription link), or that he had little or no control over the results of the project (identity-event link). Justifications and excuses are well-documented tactics that fit into this category, having been observed both in general settings (e.g., Schlenker et al. 1991) and audit settings (e.g., Koonce et al. 1995).

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[7] Integrative solutions include specific behaviors such as cost cutting, compensation, and logrolling, which often lead to both parties perceiving that they have attained their preferred outcomes.

Hypothesis Development

Auditors make many types of decisions. Although the decision model presented above may be applicable to many of these decisions (Beach and Frederickson 1989), the present study specifically examines the type of audit decision that occurs when an auditor observes a preparer's accounting treatment for an ambiguous state or event,[8] and must decide whether to accept or reject it. This type of audit decision is quite common, and appears to be well described by the model. In such a situation, the auditor has two generic options. He can (1) accept the preparer's accounting treatment, or (2) reject the preparer's accounting treatment. The audit setting in which the auditor makes such a decision can be mapped onto one or more accountability pyramids, with simple accountability being represented by a single pyramid, and complex accountability being represented by two pyramids sharing the decision as the common event. The source in each pyramid is a financial statement preparer, a financial statement user, a supervisor, a regulatory body, or somebody else. Under complex accountability, even though two pyramids share an event, each has its own set of identity images linked to a specific set of prescriptions. Under *conflicting* accountability, these prescriptions will not be consistent with each other. For example, identity images in a pyramid where the source is the financial statement preparer may include being "accommodating." Prescriptions associated with maintaining this image would include accepting the preparer's accounting treatment. On the other hand, identity images in a pyramid where the source is a financial statement user may include being "tough". Prescriptions associated with maintaining this image would include rejecting the preparer's accounting treatment.[9] An auditor who feels strongly accountable to both sources faces the difficult task of trying to follow conflicting prescriptions. The following sections develop hypotheses regarding how an auditor behaves under these conditions.

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[8] Ambiguous in this sense is represented by situations where it is not obvious whether an accounting treatment is allowed or prohibited by GAAP. In such situations, the appropriate accounting treatment depends on the auditor's interpretation of evidence, interpretation of standards, materiality, and on the auditor's use of professional judgment.

The Decision Process

The first question examined in this study is whether conflicting accountability affects *how* auditors make decisions. Under simple accountability an auditor only recognizes one accountability source for the decision event. If that source is a financial statement preparer, the auditor may wish to appear accommodating. If this goal is important enough , it may lead the auditor to frame the decision as a question of whether the preparer's accounting treatment can be justified. On the other hand, if the source is a financial statement user, the auditor may wish to appear tough. Again, if this goal is important enough, it may lead the auditor to frame the decision as a question of whether rejecting the preparer's accounting treatment can be justified. In either case, the decision is framed in terms of a single option, with that option being preferred over the status quo because of the benefits that accrue to the auditor from being able to maintain the correct image (see Messik and Sentis 1979). According to the model, such decisions should require relatively simple processing, as the auditor should be able to complete the decision using a single acceptability test. He simply examines the preferred option to see whether it is consistent with his principles and other goals. If the preferred option can be justified, the auditor adopts it and the decision ends. Such behavior is clearly consistent with the complexity studies in the social psychology literature, where subjects under simple accountability to known sources displayed relatively low integrative complexity and appeared to concentrate their decision process on one side of the issue (e.g., Tetlock 1983a; Tetlock et al. 1989).

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[9] In order to depict conflicting accountability, the present study uses the same assumptions used by Antle and Nalebuff (1991), namely that financial statement preparers generally prefer relatively aggressive accounting and that financial statement users generally prefer relatively conservative accounting. Although this assumption does not appear unreasonable, other scenarios clearly occur in the real world as well. The terms "accommodating" and "tough" are also used by Antle and Nalebuff.

Under *conflicting* accountability, the auditor recognizes at least two accountability sources for the decision event. Because each accountability source has its own set of identity images, this may lead to the auditor having two separate decision goals. One goal might be to appear accommodating in the eyes of the preparer; the other goal might be to appear tough in the eyes of the user. Unfortunately for the auditor, reaching both goals simultaneously may be difficult because of the conflicting prescriptions required to reach them. Indeed, in a decision event involving a single issue, it may be difficult even to appear impartial. Since neither option is clearly preferred under conflicting accountability, the auditor is more likely to frame the decision in terms of two options,[10] each of which helps the auditor reach one decision goal. According to the model, such a decision requires relatively complex processing. The auditor must first screen each option using an acceptability test. This should prevent the auditor from adopting any inappropriate options. If through this process, the auditor determines that only one of the options is acceptable, he adopts that option and quits the decision. However, since ambiguous decisions by definition require judgment and interpretation of standards and evidence, both options may pass their respective acceptability test. If this happens, the auditor uses a comparison test to select the option that is most justifiable, thus completing the decision. Such behavior is also consistent with the complexity studies in the social psychology literature, where subjects accountable to unknown sources displayed relatively high integrative complexity and tended to examine both sides of the issue (e.g., Tetlock 1983a; Tetlock et al. 1989).

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[10] This argument is also made in the accountability research when the decision maker is accountable to a source with unknown views and preferences. In such a case, since the decision maker has no clearly preferred option he must examine both options (or both sides of the issue) in order to identify the most justifiable option.

In summary, given an ambiguous decision, an auditor is likely to use more complex decision processing under conflicting accountability than under simple accountability, both in terms of the number of acceptability tests he performs and in terms of a separate comparison test. This provides the first hypothesis:

Hypothesis 1: When making ambiguous decisions, auditors under conflicting accountability use more complex decision processing than auditors under simple accountability.

The second question examined in this study is whether conflicting accountability affects *what* auditors decide. Previous studies have suggested that under simple accountability, auditors tend to adopt the option most consistent with the identity images valued by the source (e.g., Buchman et al. 1996; Hoffman and Patton 1997;

Peecher 1996; Quilliam 1991). One explanation for this is that auditors use the acceptability heuristic; that is, their decision process consists of identifying the option preferred by the source and adopting it. However, in light of the results in Pennington and Schlenker (1999) and the arguments made by Bazerman and his colleagues (Bazerman et al. 1997), a more likely explanation is that under simple accountability, auditors simply frame decisions such that the resulting information search and evaluation processes are biased toward the option preferred by the source. This explanation is consistent with the decision model in Figure 5. According to the model, auditors accountable only to a preparer are more likely to frame the decision in terms of whether accepting the preparer's accounting treatment can be justified, whereas auditors accountable only to a user are more likely to frame the decision in terms of whether rejecting the preparer's accounting treatment can be justified. Either way the decision focuses on a single "preferred" option, making the decision highly susceptible to self-serving bias or confirmatory bias, both of which predict the observed behavior.[11] Along these same lines, framing a decision differently has also been shown to cause decision makers to use different rejection thresholds during acceptability tests (Ganzach 1993). For example, auditors who prefer to accept the preparer's accounting treatment may tend to use a relatively high rejection threshold, while auditors who prefer to reject the preparer's accounting treatment may tend to use a relatively low rejection threshold. In other words, in one condition the preparer's accounting treatment is accepted even if it is only *minimally* justifiable, while in the other condition the preparer's accounting treatment is rejected unless it is *highly* justifiable. Given the definition of ambiguous decisions, these two rejection thresholds are unlikely to describe the same level of justifiability, thus leading to different options being adopted depending upon how the decision is framed (Waller and Felix 1984).

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[11] Self-serving bias occurs when a decision maker searches more for, or gives heavier weight to evidence supporting a preferred option or outcome than to evidence rejecting the preferred option or outcome (e.g., Thompson and Loewenstein 1992; Loewenstein et al. 1993; Babcock et al. 1995). Confirmation bias occurs when a decision maker searches more for, or gives heavier weight to evidence confirming a hypothesis than to evidence disconfirming a hypothesis (e.g., Church 1990, 1991; Klayman and Ha 1987).

According to the model, each of these biases should be reduced or eliminated under conflicting accountability, resulting in decisions that have the appearance of being much more objective. Under conflicting accountability, each option is preferred by one source but not the other, making the adoption of each option consistent with only one set of prescriptions. In this situation, the auditor has no clearly-preferred option to begin with. This immediately prevents the auditor from using the acceptability heuristic. More importantly, under conflicting accountability, auditors are more likely to frame the decision in terms of two options rather than one. This should increase the likelihood of the auditor completing the decision using a comparison test, which should reduce or eliminate self-serving or confirmatory bias that might have occurred if the decision were framed in terms of a single preferred option. This should also lead to options being accepted or rejected based on relative justifiability rather than arbitrary rejection thresholds. Hence, it appears that the propensity for auditors to adopt the option preferred by one source or the other under simple accountability should be eliminated under conflicting accountability. This provides for the second hypothesis:

Hypothesis 2: Auditors accountable to both the financial statement preparer and the financial statement user (conflicting accountability) are less likely to *accept* the preparer's accounting treatment of an ambiguous issue than auditors accountable only to the financial statement *preparer* (simple accountability), but are less likely

to *reject* the preparer's accounting treatment of an ambiguous issue than auditors accountable only to the financial statement *user* (simple accountability).

Monitoring and Tactics

The third question examined in this study is whether conflicting accountability effects the extent to which auditors use decision tactics. Under either simple or conflicting accountability, the model predicts that once an auditor identifies a likely predicament, he will generally use decision tactics to increase the likelihood of his being able to maintain the "at-risk" identity images, or to reduce any sanctions associated with a loss of reputation. From this it follows that to predict how conflicting accountability affects the use of tactics, one must identify its association with predicaments.

Under simple accountability, an auditor faces a predicament involving identity images only when he cannot accept the option preferred by the source. This should occur relatively frequently in decisions where the preparer's accounting treatment is clearly acceptable or clearly unacceptable. However, this should occur relatively infrequently in decisions that are ambiguous, since such events are predicted to result in the auditor adopting the option preferred by the source (see the discussion above for H2). On the other hand, under conflicting accountability a predicament is likely to occur regardless of which option the auditor adopts. Given a single decision where the preparer prefers one option and the user another, the auditor cannot easily appear both accommodating and tough. Hence, the model appears to predict that since auditors are more likely to face predicaments under conflicting accountability than under simple accountability, they should generally use tactics more often under conflicting accountability than under simple accountability. More specific hypotheses regarding different types of tactics are developed in the following sections.

Accountability-reducing tactics

Auditors can use several different types of decision tactics. Defensive tactics are generally used to soften the blow of not being able to follow prescriptions during an event. Schlenker (1986) suggests that a common defensive tactic is for decision makers to try to reduce personal responsibility for the decision event by weakening one or more of the links in one of the accountability pyramids. An auditor can do this in several ways. He can try to weaken the identity-prescription link by trying to convince the source that expectations for the issue were either too high or were not realistic. He can try to weaken the event-prescription link by trying to convince the source that the audit decision went as it did because of some overwhelming principle or because of too much uncertainty. Or he can try to weaken the identity-event link by trying to convince the source that he had little or no control over the audit decision. This study focuses specifically on this last approach because it can be accomplished through a behavior frequently observed in audit settings, namely by consulting with other members of the audit firm. Consultation is a practice followed regularly by a majority of auditors (Emby and Gibbins 1988; Gibbins and Mason 1988; Gibbins and Emby 1985). While auditors may genuinely use consultation to access additional sources of expertise to help make ambiguous audit decisions, research on consultation suggests that auditors consult with other auditors more for the purpose of justifying their own decisions (Kennedy et al. 1997; Koonce et al. 1995), or to shift responsibility for difficult decisions to others

(Heath and Gonzalez 1995; Kennedy et al. 1997). Through consultation, an auditor can essentially change the nature of the decision from an individual decision to a group decision, where responsibility becomes distributed among the group members.[12] Thus, an auditor who consults can say to a disappointed source, "I realize this was not the option you preferred, but *the firm* felt that this was correct." Regardless of whether this results in the adoption of the option preferred by the preparer or the option preferred by the user, this tactic may successfully reduce personal blame for unpopular decisions, preserving an auditor's personal identity images at a reasonable level. Given that tactics are predicted to be more common under conflicting accountability, this provides the third hypothesis:

Hypothesis 3: When making ambiguous decisions, auditors under conflicting accountability are more likely to use responsibility-reducing tactics (e.g. consultation) than auditors under simple accountability.

Negotiation

Another type of tactic auditors might use is to try to resolve the conflict through the use of "offensive" tactics, or negotiation (see Antle and Nalebuff 1991; Gibbins and Newton 1994; Gibbins et al. 1998). However, the specific type of negotiation tactics an auditor uses depends on the circumstances of the decision event, which specifically determine the tactics that are available. For example, if the decision event involves a single issue, the auditor is generally limited to searching for some kind of *distributive* solution. In other words, rather than simply adopting the option preferred by one source

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[12] Research supports the fact that individuals in a group feel less accountable for an event than do individuals by themselves, a condition that leads to such phenomena as risky shift and cognitive loafing.

(and rejecting the option preferred by the other source), the auditor may search for a middle ground--or compromise--between the two positions. By doing so, the auditor increases the likelihood of adopting a position that will be *somewhat* acceptable to both sources, thus preserving both sets of identity images at a reasonable level. For example, although the preparer may prefer no adjustment at all, the auditor may be able to appear somewhat accommodating by only requiring a relatively small adjustment. On the other hand, even though the user may prefer an adjustment for the full amount, the auditor may be able to appear sufficiently tough by requiring that same relatively small adjustment (see Bazerman 1998; Gibbins et al. 1998).[13] [14] Given a decision event involving a single issue, and given that tactics are predicted to be more common under conflicting accountability than under simple accountability, this provides for the fourth hypothesis:

Hypothesis 4: In decision events involving a single ambiguous issue, auditors under conflicting accountability are more likely to propose distributive solutions (e.g. compromise) than auditors under simple accountability.

The type of decision event examined in the present study often includes a portfolio of audit issues rather than a single audit issue. For example, auditors may not decide what to do with material issues until all the evidence has been gathered, when the maximum amount of information is available to help make the decisions (Gibbins and Newton 1994). At that point, there may be several issue to resolve. The existence of multiple issues in a decision event provides the auditor with the opportunity to propose integrative solutions to resolve conflict, as integrative solutions involve the manipulation of multiple issues to satisfy both sources. For example, if an auditor under conflicting accountability has two issues to work with, he can examine both issues to ascertain which options are easiest to justify for each, and to identify which options are of greater importance to each source. This information can then be used strategically to decide one issue in favor of the preparer and the other issue in favor of the user. By coming to the negotiation table with two adjustments in hand, but then passing on the issue of most importance to the preparer, the auditor may successfully appear accommodating to the preparer.[15] At the same time, the auditor may still appear to be sufficiently tough in the eyes of the user (should a reckoning occur) by at least requiring one adjustment. In other words, an accountable auditor may be able to propose a portfolio of options that gives each source the perception that the auditor has behaved according to prescribed behaviors. Given a decision event involving multiple issues, and again given that tactics are predicted to be more common under conflicting accountability than under simple accountability, this provides for the fifth hypothesis:

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[13] The nature of the audit setting is such that the user is generally unaware of specific decisions made by the auditor during an audit. However, the existence of accountability pressure from the financial statement user does not require an actual evaluative reckoning. Auditors feel accountable to users because of the *possibility* of an evaluative reckoning taking place (Pennington and Schlenker 1999), as well as because of the auditor's perceived role as an auditor (Baldwin et al. 1990). Although auditors may also communicate the results of their decisions directly with specific financial statement users, it is not clear to what extent this occurs.

[14] A similar argument reflects the fact that compromise carries with it the notion of fairness on the part of the decision maker. According to this argument, auditors under conflicting accountability would compromise because "fair" solutions are generally easier to justify than "extreme" solutions (see Adelberg and Batson 1978; Curley et al. 1986).

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[15] Personal experience and discussions with audit professionals have produced numerous anecdotal examples of this type of behavior, with partners going into client meetings with a list of audit adjustments they will require and audit adjustments they already know they will pass on. In extreme cases, auditors even search for potential adjustments they know are not justifiable just to help in this negotiation process.

Hypothesis 5: In decision events involving multiple ambiguous issues, auditors under conflicting accountability are more likely to propose integrative solutions (e.g. trade offs) than auditors under simple accountability.

Experiments used to test these hypotheses are included in Chapters 4 and 5. Chapter 4 tests those hypotheses that are relevant in single-issue decision events, while Chapter 5 tests those hypotheses that are relevant in multiple-issue decision events.

CHAPTER 4
EXPERIMENT 1

The hypotheses developed in Chapter 3 are tested in two experiments as described in Chapters 4 and 5. Experiment 1 is presented in this chapter; experiment 2 is presented in Chapter 5.

Method

Overview

Experiment 1 was used to test the first four hypotheses regarding the effects of conflicting accountability on auditors' decision processing during a single-issue decision event. In this experiment, auditor subjects completed a case wherein they played the role of the auditor of a division of a hypothetical medium-sized, privately-held manufacturing company. The parent company of the division was in the process of selling the division to another hypothetical medium-sized, privately-held manufacturing company, pending the results of the audit. Subjects were provided background materials on both companies, financial information for the division, engagement information from the audit planning memo, and information regarding a single material audit issue discovered during the audit. Accountability was manipulated across three treatment groups by having subjects perform the audit for the seller only (simple accountability), for the buyer only (simple accountability) or for both the seller and the buyer (conflicting accountability). The audit issue encountered in the case involved some slow-moving and potentially obsolete inventory. Subjects were provided general information regarding the inventory issue, and several specific pieces of evidence regarding the inventory. This evidence was inconclusive in order to leave the issue ambiguous. As part of the case, subjects were required to decide how to resolve the inventory issue. Dependent variables measuring complexity of processing, decision outcome, and decision tactics were gathered to test the hypotheses. Subjects also provided demographic data to assist in the analysis of the results.

Case Materials

The case used in the first experiment was developed by the author with the assistance of several audit professionals at four different audit firms.[1] The final case consisted of several pages of information regarding the companies and the engagement, some letterhead for a post-decision memo, and a questionnaire (see Appendix A). The case begins by providing background information regarding two privately-held, medium-sized manufacturing companies--GlassCoat and Flexicon. GlassCoat is a company comprised of three divisions, one of which (Plastic Division) they are trying to sell because it has not met the company's expectations (although it has been profitable). Flexicon is interested in buying the division, and the case explains that the two companies are involved in negotiations about the possible transfer of the division from GlassCoat to Flexicon. There are three versions of the case. In the first version,

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[1] Partners assisting with the development of the case came from two large international firms and two large local firms.

GlassCoat is a recurring client and Flexicon is not. Subjects are told that their firm has been hired by GlassCoat to perform an audit of Plastic Division, and that they are the primary partner on the engagement. This version makes it clear that only GlassCoat will be relying on the audit. In the second version, Flexicon is a recurring client and GlassCoat is not. Subjects are told that their firm has been hired by Flexicon to perform an audit of Plastic Division, and that they are the primary partner on the engagement. This version makes it clear that only Flexicon will be relying on the audit. In the third version, both GlassCoat and Flexicon are recurring clients. Subjects are told that their firm has been hired by both companies to perform an audit of Plastic Division, and that they are the primary partner on the engagement. This version makes it clear that both parties will be relying on the audit. The different versions of the case were used to invoke different accountability conditions, primarily by placing auditor subjects in different roles. The first two versions represent simple accountability, with the remaining version representing conflicting accountability. [2]

Following the background information, the case provides important information from the audit planning memo, such as Plastic Division's income for the past year, the preliminary assessment of materiality, the size of Plastic Division relative to the whole company, and information regarding the integrity of Plastic's management. This section of the case also makes it clear that the audit is to be a GAAP audit.[3] Following the planning-memo information, the case provides Plastic Division's balance sheet. Finally, the case describes an audit issue discovered during the audit, emphasizing that it was the only material issue discovered during the audit. The issue involves some slow-moving inventory that may have become obsolete due to competitors' development of a better product which sells for almost the same price. Several specific pieces of evidence regarding the inventory are provided, some of which support keeping the inventory at cost, and some of which support writing down the inventory. The evidence is intentionally mixed and leaves the issue ambiguous. Finally, the case includes some letterhead addressed to the party or parties to whom the subject is accountable. This is included to reinforce the accountability manipulation by requiring subjects to justify their decisions to accountability sources.

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[2] The audit in the case is not a typical financial statement audit. While this may have external validity implications, it facilitated the accountability manipulations. It became apparent during the case development that it is extremely difficult (if not impossible) to create simple accountability in a traditional financial statement audit involving both a client preparer and a third party user. This was especially true for simple accountability to the client preparer. Any decrease in external validity introduced by using an atypical audit setting were deemed by the author to be worth the increase in internally validity. Nevertheless, audit partners assisting in the development of the case indicated that they did not feel that the atypical setting would have a significant impact on the way auditors addressed or resolved the audit issue. Mundane realism appears to have been maintained.

At several stages during the case development, audit partners reviewed the case for realism, clarity, and to make sure the issue remained ambiguous. Input was also solicited regarding additional information that should be included in the case, and what the partners believed would happen if the case were to occur in the real world. Once the case appeared to be sufficiently developed, a group of audit professionals (from a Big 5 office not providing subjects for the actual experiment) pilot tested each version of the case. Based on these pilot tests, the case appeared to be reasonably realistic and the accountability manipulations appeared to be successful.

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[3] Professionals involved in the case development indicated that this would often be the case in such an audit.

Following the pilot tests, the case was put on computer disks using Prentice-Hall's Authorware Academic software so that subjects would be able to complete the instrument on the computer. This was done to facilitate the collection of various variables including the amount of time subjects would take to complete the decision task. Instructions for running the program and an introductory letter were added to the case packet at this time. The final instrument consisted of the disk containing the case, some letterhead, and the questionnaire.

Subjects

Subjects were recruited by contacting individuals at several offices of four large international accounting firms in the southeastern United States. These individuals committed certain numbers of managers and partners in their respective offices to participate in the study, at which time the indicated number of case packets were sent to the contact person. Packets were unmarked and contained randomized versions of the case. Contact persons distributed the packets to managers and partners at their offices along with a memo from them explaining that their firm was taking part in the study, and emphasizing the importance of their cooperation. Subjects completed the instrument on their own and then either sent the completed instruments directly to the author, or gave the completed instruments to the contact person, who then sent them to the author. Subjects' anonymity was maintained in all cases.

Subjects for experiment 1 included 46 professional auditors from several offices of four large international accounting firms. These firms provided 20, 15, 7, and 4 subjects respectively, which were fairly evenly distributed among experimental conditions (see Table 1). It was important in this experiment for subjects to have sufficient experience to ensure that they possessed the necessary auditing schemata to address the task in the audit case realistically. Audit decisions involving whether to allow an aggressive accounting treatment or whether to require an audit adjustment occur only at the manager or partner level. Auditors below this level probably do not have a good understanding of the dynamics of auditor-client negotiations, nor would they be familiar with some of the available tactics. This was important because the accountability manipulation in the experiment was relatively weak--that is, accountability was invoked by placing subjects in different roles in the case rather than having actual evaluative reckonings with accountability sources. Subjects included 13 partners and 33 managers and senior managers, and averaged 10.9 years of public accounting experience (range 4 - 30 years). On average, 42.4 percent of subjects' clients had material inventories (range 0% – 100%). Based on this information, the subjects participating in experiment 1 appeared to be sufficiently experienced to complete the task realistically.

Procedures

Subjects began by opening the packet, which contained a memo from the contact person, an introductory letter from the author, a computer disk containing the program, instructions for running the program, some letterhead for the subject's memo, a questionnaire, and a stamped return envelope. After reading the instructions, subjects inserted the disk into their computers and started the program. The program's initial screen contained instructions for completing the case. Subjects were told that they

Table 1
Distribution of Subjects Among Treatment Conditions

	Preparer Only [b] (Prep)	User Only [b] (User)	Preparer and User [b] (Both)	Total
Firm 1 [a]	9	6	5	20
Firm 2	3	6	6	15
Firm 3	2	2	3	7
Firm 4	1	2	1	4
Total	15	16	15	46

[a] Subjects were managers and partners from four large international accounting firms.
[b] Chi-square analysis suggests that firm distributions within treatment conditions did not differ significantly across treatment conditions ($\chi^2 = 3.28$, $p = .774$).

would be completing a case and that they would be able to interact with the program using the mouse and the keyboard. They were instructed at this time that information would be shown to them on a series of screens and that at some point they would be required to make a decision. They were also informed that they would be able to review any or all screens prior to making their decision, and that they would be required to write a memo justifying their decision at the end of the case. The amount of time subjects remained on the instruction page was recorded by the computer so reading speed could be used as a covariate in the analyses. Subjects started the case by pressing the return key, at which time a series of screens appeared. Subjects could move through these screens at their own pace by pressing the return key. The first two screens presented the background regarding the two companies and the situation involving the negotiations and the possible transfer of the division. They also provided the accountability manipulation. Simple accountability was invoked by having the audit-firm's client be either the seller or the buyer, but not both. Conflicting accountability was invoked by having both the seller and the buyer be the client. At this point, the rest of the case was presented on a series of screens. Information on these screens included financial information for the division, information about the audit and finally the introduction of the audit issue. Subjects were instructed on the issue screen that the next screen would contain evidence regarding the issue and that they would need to decide how to resolve the issue at that time. The evidence screen provided several pieces of evidence, and required subjects to decide whether or not to propose an adjustment. Subjects were allowed to go back and review any or all previous screens prior to recording their decisions. Ultimately, subjects had to return to the evidence screen to make their decision.

After indicating whether or not to require an adjustment, subjects were asked on the screen to indicate how confident they were with their decision along an 11-point scale with 0 indicating "not confident" and 10 indicating "very confident". They were then asked to indicate the size of the reserve they would require (if any), from 0% ("no reserve") to 100% ("full reserve"). The next screen asked subjects how likely they would be to consult with another audit partner in the firm as part of the decision process, again along an 11-point scale with 0 indicating "not likely" and 10 indicating "very likely". The final screen in the case thanked subjects for their participation, and gave subjects further instructions about how to complete memo, how to complete the questionnaire, and how to return the disk, the memo, and the questionnaire to the author. At this point, subjects completed the memo and the post experimental questionnaire, sealed the materials in the return envelope, and either sent it directly to the author, or gave it to the contact person who sent it directly to the author.

Dependent Variables

Experiment 1 used several dependent variables. *Complexity of processing* was operationalized as the amount of time subjects took to complete the decision task. This method of operationalizing processing complexity is consistent with the notion that more complex processing requires additional cognitive effort (Libby and Lipe 1992), or additional individual processing units (Bettman et al. 1990). It has been used frequently in the judgment and decision making literature. Processing time, which was measured directly by the computer program, was measured over two different segments of the decision task. Total processing time (TPT) indicated the amount of time subjects took to make the decision beginning from the accountability manipulation. Decision time only (DTO) indicated the amount of time subjects took to make the decision once they encountered the decision. *Decision outcome* was captured by the computer program by having subjects indicate whether or not they would accept the preparer's accounting treatment for the issue. A dichotomous variable was used rather than a continuous variable (e.g. the likelihood of the subjects' requiring an adjustment) in order to require subjects to make a commitment, which would make predicaments more salient. The use of *accountability-reducing tactics* was measured by having subjects assess how likely they would be to consult with other audit partners in the firm regarding the issue as part of the decision process. This variable was also captured by the computer.

Finally, the use of *distributive tactics* was captured by the computer by asking subjects to indicate the size of the reserve they would require (if any) for the inventory issue. Since preparers were assumed to prefer no reserve and users were assumed to prefer a full reserve, subjects would be able to find a distributive solution by requiring a reserve, but for relatively moderate amounts. Variables captured by the computer were stored automatically in a text file on the disk and were later retrieved by the author.

Results

Descriptive Data

A total of 82 instruments were distributed to participants at eight offices of four large international accounting firms. Of the 82 instruments, 48 were returned yielding in a 59% response rate.[4] However, due to disk problems, two of these instruments were returned without having been completed. The remaining 46 subjects were distributed fairly evenly across accountability conditions, with 15 subjects in the Preparer Only condition (cell 1), 16 subjects in the User Only condition (cell 2), and 15 subjects in the Preparer and User condition (cell 3).

Descriptive data for the three accountability conditions are shown in Table 2. For each item, one-way analysis of variance was used to test whether at least one cell differed significantly from any of the other cells. These tests revealed that none of the descriptive data varied systematically among cells. General experience was measured as the number of years of experience in public accounting. This averaged 10.9 years across all subjects and did not differ across treatment conditions (F = 1.05, p = .359). Issue-specific experience was measured as the percentage of current clients who had significant inventories. This averaged 42% across all subjects and did not differ across treatment conditions (F = 1.86, p = .169). Subjects found the case to be realistic, as their assessments of case realism averaged 5.4 on a seven-point scale (1-not realistic, 7-very realistic) across all subjects. This did not differ across treatment conditions (F = 1.49, p = .238). Subjects believed the inventory issue in the case to be moderately material, as their materiality assessments averaged 4.4 on a seven-point scale (1 = not material, 7 = highly material) across all subjects. This did not differ across treatment conditions (F = 0.98, p = .384). Finally, subjects tended to view themselves as slightly more conservative than auditors in general. The mean assessment of whether other auditors were generally too accommodating or too tough averaged 3.54 on a seven-point scale (1 = too accommodating, 7 = too tough) across all subjects.[5] This did not differ across treatment conditions (F = 0.65, p = .525). In summary, there do not appear to be systematic differences in subjects' experience levels or perceptions across the three experimental conditions.

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[4] Response rates by firm were 64%, 71%, 32%, and 50%, respectively.

Manipulation Checks

In order to test whether the accountability manipulation in the case was successful, subjects were asked the following question in the post experimental questionnaire: "To whom did you feel most responsible for your decision?". Subjects

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[5] Interestingly, the mean assessment of 3.54 was significantly lower than the midpoint of 4, (Z = 3.99, p < .001) suggesting that on average, auditors believe other auditors to be slightly less conservative than themselves.

Table 2
Descriptive Information

Mean (St Dev) Range	Preparer Only n=15 [a, g]	User Only n=16 [a]	Preparer and User n=15 [a, g]	Total N=46
General Experience [b]	11.3 (7.7) 4 – 28	12.4 (7.2) 6 – 30	9.0 (4.8) 5.5 – 24	10.9 (6.7) 4 – 30
Specific Experience [c]	0.3 (0.28) 0 - .95	0.44 (0.30) 0 - .8	0.53 (0.33) 0 – 1.0	0.42 (0.31) 0 – 1.0
Case Realism [d]	5.3 (1.4) 2 – 7	5.8 (1.3) 2 – 7	5.0 (1.3) 2 – 7	5.4 (1.4) 2 – 7
Perceived Materiality [e]	4.1 (1.6) 1 – 6	4.9 (1.8) 2 – 7	4.1 (2.0) 2 – 7	4.4 (1.8) 1 – 7
Relative Conservatism [f]	3.7 (0.8) 2 – 5	3.4 (1.0) 2 – 5	3.5 (0.5) 3 – 4	3.5 (0.8) 2 – 5

[a] One-way ANOVAs were run for each assessment across cells. In no case was there a significant difference across cells ($p > .169$).

[b] General experience was measured as the number of years the subject had been in public accounting.

[c] Specific experience was measured as the percentage of the subject's clientele that had significant inventories.

[d] Realism was assessed by the subject along a 7-point scale with 1 = "not realistic" and 7 = "very realistic."

[e] Materiality was assessed by the subjects along a 7-point scale with 1 = "not material" and 7 = "highly material."

[f] Relative conservatism of the subjects was measured by asking subjects to assess whether they believed most auditors to be too accommodating or too tough, with 1 = "too accommodating" and 7 = "too tough." This information was gathered to use as a covariate in the analyses. Low assessments should be associated with relatively conservative subjects.

[g] One subject in cell 1 and one subjects in cell 3 did not provide information regarding specific experience. Analyses using specific experience have only 14 observations in these cells.

responded by giving their assessment along a seven-point scale with 1 = "to GlassCoat only" (the preparer) and 7 = "to Flexicon only" (the user). Descriptive results regarding this manipulation are included in Table 3. Subjects' accountability assessments in the Preparer Only (simple), User Only (simple), and Prepare and User (conflicting) conditions averaged 2.67, 5.44, and 4.00 respectively. Simple comparisons were used to test the manipulation, with each of the simple accountability conditions being compared to the conflicting accountability condition. Results of these comparisons indicated that the mean accountability assessment in the Preparer Only group was significantly lower than the mean accountability assessment in the Preparer and User group ($F = 12.13$, $p = .001$ two-tail), and that the mean accountability assessment in the User Only group was significantly greater than the mean accountability assessment in the Preparer and User group ($F = 14.55$, $p < .001$ two-tail). Hence, the accountability manipulation appears to have been successful.

It should be pointed out, however, that although the means in each cell were significantly different from the means in the other cells, there was considerable variation among subjects within each cell. While subjects in cell 3 had accountability assessments in the 3-5 range (the expected range for conflicting accountability), 7 subjects in cell 1 and 8 subjects in cell 2 also had accountability assessments in this range (see Table 3). It appears that even in the contrived setting of the audit case, many subjects who were supposed to be accountable to either the preparer or the user claim to have felt accountable to both sources. One subject in the Preparer Only group even claims to have felt more accountable to the user than to the preparer. This pattern is

Table 3
Accountability Data

Accountability Assessment [a]	Preparer Only Group (cell 1)	Preparer and User Group (cell 3)	User Only Group (cell 2)
7	0	0	5
6	0	0	3
5	1	1	2
4	3	13	6
3	3	1	0
2	6	0	0
1	2	0	0
Mean (St Dev)	2.67 (1.18)	4.00 (0.38)	5.44 (1.31)

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
Prep vs Both [b]	1	13.33	12.13	.001
Both vs User [b]	1	16.00	14.55	< .001
Error	43	47.27		

Omnibus ANOVA $R^2 = .56$

[a] Accountability was assessed by asking subjects, "To whom did you feel most responsible for your decision?", and having them respond along a seven-point scale with 1 = "GlassCoat only" and 7 = "Flexicon only."

[b] Two-tail test.

consistent with the difficulties experienced during the case development with being able to invoke simple accountability, and further motivates the study of conflicting accountability among auditors.

Hypothesis Tests

Complexity of processing

Hypothesis 1 predicted that auditors under conflicting accountability would use more complex decision processing than auditors under simple accountability. As noted earlier, complexity was operationalized as the amount of time subjects took to complete the decision event. Total processing time (TPT) measured the amount of time subjects took to complete the decision task *after the accountability manipulation.* Decision time only (DTO) measured the amount of time subjects took to complete the event *after encountering the decision.* Two measures of processing time were used because the accountability manipulation and the presentation of the decision did not coincide in the case.

Descriptive data and results of the TPT analysis are shown in Table 4. On average, subjects across treatment groups took 510 seconds (eight and a half minutes) to complete the task after the accountability manipulation (range 70 - 2677 seconds). As predicted, there was considerable variation in TPT across treatment groups. Subjects in the Preparer Only, User Only, and Both groups averaged 509, 286, and 749 seconds respectively to complete the task. According to H1, subjects under conflicting accountability should have had higher TPT then subjects under simple accountability. This was tested using one-way analysis of variance, specifically by performing a planned comparison of the conflicting accountability group (cell 3) versus the combined simple accountability groups (cells 1 and 2). The results of this comparison (also in Table 4) show that the mean TPT in cell 3 was significantly greater than the mean TPT

Table 4
Processing Complexity: Total Processing Time

	Treatment Conditions			
Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Total Processing Time [a]	509 / 335 (455.1) 129 – 1482 n=15	286 / 208 (208.3) 70 – 808 n=16	749 / 392 (885.1) 176 – 2677 n=15	510 / 281.5 (599.7) 70 – 2677 N=46

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
(Prep & User) vs Both [b]	1	1,249,623	3.70	.031
Prep vs User [c]	1	387,448	1.15	.290
Error	43	14,518,301		

Omnibus ANOVA $R^2 = .10$

[a] Total processing time was measured by the computer as the amount of time subjects took to complete the decision task after the accountability manipulation.
[b] One-tail test.
[c] Two-tail test.

in cells 1 and 2 (F = 3.70, p = .031 one-tail). The orthogonal comparison of the two simple accountability groups (cells 1 and 2) revealed no significant difference in TPT between these groups (F = 1.15, p = .290 two-tail). These results are consistent with the first hypothesis.

Although the above results are consistent with H1, the descriptive information in Table 4 reveals that the data are skewed and that there is considerable variability within treatment groups. To control for the possibility that the above results may have been driven by extreme observations, sensitivity analysis was performed by ranking the TPT data and using non-parametric methods to test H1. Results of a Wilcoxon rank-sum test (normal approximation) indicated that subjects in the conflicting accountability treatment group still took significantly more TPT than subjects in the combined simple accountability treatment groups (Z =1.71, p = .044 one-tail).[6] Hence, the results of the parametric tests using TPT as a measure of processing complexity do not appear to have been driven by skewed data or by extreme observations. In summary, the TPT results appear to be consistent with H1.

Descriptive data and results of the DTO analysis are shown in Table 5. Although the magnitudes of DTO are smaller than the TPT, the descriptive information appears to be consistent with total processing times. On average, subjects across treatment groups took 244 seconds (approximately four minutes) to complete the task after the decision was encountered (range 40-2436). Subjects in the Preparer Only, User Only, and Both groups averaged 218, 191, and 327 seconds respectively to complete the task. According to H1, subjects under conflicting accountability should also have higher DTP then subjects under simple accountability. This was tested using one-way analysis of variance, specifically by performing a planned comparison of the conflicting accountability group (cell 3) versus the simple accountability groups (cells 1 and 2). The results of this comparison (also in Table 5) show that while the means were in the hypothesized direction, the mean DTO in cell 3 was not statistically greater than the mean DTO in cells 1 and 2 (F = 1.10, p = .150 one-tail). The orthogonal

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[6] A simple comparison was also performed on the raw TPT data after removing extreme observations. Results were not substantively different from the original analysis.

Table 5
Processing Complexity: Decision Time Only

	Treatment Conditions			
Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Decision Time [a]	218 / 156 (163.4) 53 – 602 n=15	191 / 94 (201.0) 40 – 709 n=16	327 / 139 (592.8) 76 – 2436 n=15	244 / 143.5 (366.9) 40 – 2436 N=46

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
(Prep & User) vs Both [b]	1	151,132	1.10	.150
Prep vs User [c]	1	5,807	0.04	.838
Error	43	5,900,293		

Omnibus ANOVA $R^2 = .03$

[a] Decision time only was measured by the computer as the amount of time subjects took to complete the decision task after observing the decision itself.
[b] One-tail test.
[c] Two-tail test.

comparison of the two simple accountability groups (cells 1 and 2) revealed no significant difference in DTO between these groups (F = 0.04, p = .838 two-tail). As in the previous analysis, because the DTO data were also skewed, a Wilcoxon rank-sum test (normal approximation) was performed on the ranked DTO data. Results of this test (not shown) found that the DTO in the conflicting accountability group was not significantly greater than DTO in the combined simple accountability groups (Z = 0.66, p = .256 one-way).[7] In summary, the DTO results do not appear to be consistent with the first hypothesis.

Before discussing the results of the TPT and DTO tests above, it is important to eliminate reading speed (an obvious covariate) as having driven the results. The amount of time subjects took to read the instructions for the case was measured by the computer. Reading time in the Preparer Only, User Only, and Both groups averaged 60.5, 50.4, and 64.8 seconds respectively. A one-way ANOVA was run on this data, with the results showing that reading time did not differ significantly among the treatment groups (F = 1.06, p = .354 two-tail). Nonetheless, in order to make sure subjects' reading speed was not driving the results, analysis of covariance was performed on the data using reading time as the covariate. Results of these tests are shown in Table 6 for both TPT and DTO. As expected, reading time was significantly correlated with processing time for both TPT (F = 8.15, p = .007) and DTO (F = 2.85, p = .098), and increased the explanatory power of each model. However, using reading time as a covariate did not change the conclusions from the previous analyses. TPT continued to be significantly greater in the conflicting accountability group than in the combined simple accountability groups (F = 2.56, p = .058 one-tail), and DTO continued not to be significantly greater in the conflicting accountability group than in the combined simple accountability groups (F = 0.63, p = .216 one-tail). Hence, the

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[7] The mean DTO in the conflicting accountability groups was heavily influenced by one observation. When this observation was removed, the mean DTO in cell 3 actually dropped to 176. This was not significantly different than the mean in the combined simple accountability groups.

Table 6
Processing Complexity - Analysis of Covariance

One-way ANCOVA - Planned Comparisons (Total Processing Time) [a]

Comparison	d.f.	SS	F-Score	p- value
Reading Speed [d]	1	2,360,521	8.15	.007
(Prep & User) vs Both [c]	1	742,316	2.56	.058
Prep vs User [d]	1	147,916	0.51	.479
Error	42	12,157,780		
Omnibus ANCOVA $R^2 = .25$				

One-way ANCOVA - Planned Comparisons (Decision Time Only) [b]

Comparison	d.f.	SS	F-Score	p- value
Reading Speed [d]	1	375,273	2.85	.098
(Prep & User) vs Both [c]	1	82,531	0.63	.216
Prep vs User [d]	1	278	0.00	.964
Error	42	5,525,021		
Omnibus ANCOVA $R^2 = .09$				

[a] Total processing time was measured by the computer as the amount of time subjects took to complete the decision task after the accountability manipulation.
[b] Decision time only was measured by the computer as the amount of time subjects took to complete the decision task after observing the decision itself.
[c] One-tail test.
[d] Two-tail test.

processing-time results do not appear to have been driven by subjects' differential reading speeds.

Discussion

The processing-time results present an interesting picture of the effects of conflicting accountability on processing complexity during a decision event. The audit case used in the instrument was structured such that subjects knew to whom they were accountable at the beginning of the case, but did not encounter the decision until the end of the case.

Conflicting accountability appears to have resulted in subjects using more processing time for the whole event , but not after the decision was encountered. One possible explanation for these results is that the conflicting accountability manipulation early in the case motivated subjects to exert more cognitive effort as they initially read through the case. The additional attention given by these subjects before the decision was encountered may have resulted in such subjects not needing to review the materials as much as they might have once the decision was encountered.

To examine the reasonableness of this explanation, the available data were reexamined using several *post-hoc* analyses following the logical direction of the argument. First, to ascertain whether conflicting accountability motivated subjects to pay more attention during the initial reading of the case, intermediate time (IT) was computed as the difference between TPT and DTO and then compared across treatment conditions using one-way ANOVA (see descriptive data in Table 7). A simple comparison was then used to compare the mean IT in cell 3 (422 seconds) against the mean IT in the combined cells 1 and 2 (190 seconds). Results of this comparison (not shown) confirmed that IT under conflicting accountability was significantly greater than under simple accountability ($F = 2.32$, $p = .068$ one-tail).[8] Hence, conflicting accountability does appear to have motivated subjects to pay more attention during the initial reading of the case.

Second, to ascertain whether paying more attention during the initial reading of the case resulted in subjects reviewing case materials less often after the decision was encountered, IT was compared for subjects who reviewed at least one screen after the

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[8] Results of a Wilcoxon rank-sum test were also significant ($Z = 1.73$, $p = .041$ one-way).

Table 7
Post-Hoc Analyses of Processing Complexity

Intermediate Time Across Treatment Conditions:

Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Intermediate [a] Time	291 / 99 (357) 27-1107 n=15	95 / 89.5 (40) 30-164 n=16	422 / 139 (759) 65-2601 n=15	266 (488) 27-2601 N=46

Decision Time Across Review Conditions:

No Review [b] n=22	Review [b] n=24	t statistic	p-value
132 (133)	346 (473)	2.05	.023

[a] Intermediate time was computed as the difference between total processing time and decision time only. It represents the amount of time subjects spent reading the case materials after the accountability manipulation, but before the decision was encountered.

[b] Review indicates that subject went back to review at least one screen from the case material after encountering the decision screen. This was recorded by the computer.

decision was encountered (24) versus those that did not (22). This was done using a logit analysis with the existence of review as the dependent variable (1, 0), and IT as the independent variable. Results of this analysis (not shown) suggested that higher levels of IT were indeed associated with a significantly lower likelihood of review after the decision was encountered ($\chi^2 = 3.45$, $p = .063$). Hence, paying more attention during the initial reading of the case does appear to have reduced the likelihood of going back to review case materials after the decision was encountered.

Finally, to ascertain whether this lower likelihood of review could explain why subjects under conflicting accountability did not have significantly higher DTO, decision time was examined to see whether it was associated with subjects' reviewing case materials after the decision was encountered. This was done using a regression analysis with DTO as the dependent variable and the existence of review (1, 0) as the explanatory variable. Results of this analysis (see Table 7) showed that subjects who did not review case materials after encountering the decision had significantly lower DTO than subjects who did ($t = 2.05$, $p = .023$ one-tail). Hence, subjects who did not review after encountering the decision took less time to make their decisions.

In summary, the data appear to support H1. Conflicting accountability appears to motivate auditors to use more complex decision processing. However, this effect appears to begin from the moment the auditor identifies the accountability sources rather than later on when the audit decision is actually encountered. This results in auditors taking more time to complete the entire decision task, but does not necessarily result in auditors taking more time to make the decision once it is encountered, as the increased complexity prior to encountering the decision reduces the need to review information after encountering the decision.

Decision outcomes

Hypothesis 2 relates to the effects of conflicting accountability on decision outcomes. According to this hypothesis, auditors accountable only to the financial statement preparer should display a tendency to accept the relatively aggressive accounting treatment, whereas auditors accountable only to the financial statement user should display a tendency to reject the relatively aggressive accounting treatment.

Auditors who are accountable to both sources should display neither of these tendencies. In other words, subjects making a decision when accountable to both the preparer and the user should propose adjustments less often than subjects accountable only to the user, but more often than subjects accountable only to the preparer.

Decision outcome was measured by recording whether subjects decided to propose an adjustment or not. Hypothesis 2 was tested using contingency-table analysis as shown in Table 8. As can be see in this table, decision outcomes were in the hypothesized directions among treatment groups. While approximately 40% of subjects accountable only to the preparer accepted the preparer's treatment, only 33% of subjects under conflicting accountability did so. And while approximately 88% of subjects accountable only to the user required an adjustment, only 67% of subjects under conflicting accountability did so. Because of the relatively weak accountability manipulation, it was first necessary to compare the two simple accountability groups in order to confirm that the tendency to make decisions consistent with sources' preferences obtained. Results of this comparison revealed that the simple accountability groups were significantly--albeit marginally so--different in the hypothesized direction (Fisher's exact $p = .090$[9]). Hypothesis 2 was then tested by performing comparisons of the conflicting accountability group versus the individual simple accountability groups. As can be seen in Table 8, although subjects under conflicting accountability did accept the preparer's treatment less often than subjects accountable only to the preparer, the difference was not significant ($\chi^2 = 0.14$, $p = .705$). And although subjects under

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[9] Although chi-square data are also shown in Tables 8 and 9, Fisher's exact test was used for comparisons involving conditions with fewer than 5 observations.

Table 8
Decision Outcome-Manipulated Accountability

	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Adjust [a]	9 (60%)	14 (87.5%)	10 (66.7%)	33 (71.7%)
No Adjust [a]	6 (40%)	2 (12.5%)	5 (33.3%)	13 (28.3%)
Total	15	16	15	46

Contingency Table Comparisons:

Comparison	d.f.	χ^2	p-value	Fisher's exact p-value
Prep vs User (extremes)	1	3.06	.080	.090
Prep vs Both	1	0.14	.705	.500
User vs Both	1	1.92	.166	.170

[a] Decision outcome is measured as whether the subject required an adjustment or not for the audit issue.

conflicting accountability did reject the preparer's accounting treatment less often than subjects accountable only to the user, the difference was also not significant (Fisher's exact p = .170). These results are not consistent with H2.

It was noted earlier that the relatively weak accountability manipulation may have resulted in some subjects who were supposed to only feel accountable to one source feeling accountable to unintended sources as well (see the ranges of accountability assessments in Table 3). Such dilution may have been responsible for the weak results shown above. To try to control for this dilution, contingency analysis

Table 9
Decision Outcome-Assessed Accountability

	Preparer Only (Prep) [b]	User Only (User) [b]	Preparer and User (Both) [b]	Total
Adjust [a]	4 (50%)	8 (100%)	21 (70%)	33 (71.7%)
No Adjust [a]	4 (50%)	0 (0%)	9 (30%)	13 (28.3%)
Total	8	8	30	46

Contingency Table Comparisons:

Comparison	d.f.	χ^2	p-value	Fisher's exact p-value
Prep vs User (extremes)	1	5.33	.021	.038
Prep vs Both	1	1.12	.289	.257
User vs Both	1	3.15	.076	.088

[a] Decision outcome is measured as whether the subject required an adjustment or not for the audit issue.

[b] Subjects were classified according to their ex-post accountability assessment. Subjects with assessments of 1-2 were classified as Preparer Only, 3-5 as Preparer and User, and 6-7 as User Only.

was performed using the subjects own accountability assessments to classify them as being accountable to the preparer only, the user only, or both. The classified data for this analysis are shown in Table 9. Classifications were as follows: subjects whose assessment of accountability was 1-2 were classified as accountable to the preparer only; subjects whose assessment of accountability was 3-5 were classified as accountable to both the preparer and the user; and subjects whose assessment of accountability was 6-7 were classified as accountable to the preparer only. This reclassification resulted in seven subjects in the Preparer Only group and eight subjects in the User Only group being reclassified into the Preparer and User condition. No other reclassifications were necessary.

Results of the additional contingency table analyses are shown in Table 9. These results show that the two simple accountability groups were significantly different in the hypothesized direction (Fisher's exact $p = .038$). Fifty percent of the subjects who felt accountable only to the preparer accepted the accounting treatment, whereas all of the subjects who felt accountable only to the user rejected the accounting treatment. However, results of the comparisons used to test H2 were mixed. Subjects who felt accountable to both sources did propose adjustments significantly less often (70%) than subjects accountable only to the user (100%) (Fisher's exact $p = .088$). However, although subjects who felt accountable to both sources did propose adjustments more frequently (70%) than subjects accountable only to the preparer (50%), this difference was not statistically significant (Fisher's exact $p = .257$).[10] In summary, although the differences in decision outcomes between accountability groups are in the hypothesized directions, the statistical results do not consistently support H2.

Discussion

There are at least two likely explanations for the weak results shown above for the tests of H2. First, since the outcome data were in the hypothesized directions, it may simply be that the tests were not powerful enough to detect the accountability effects. This is a legitimate possibility given the small sample sizes and the fairly weak accountability manipulation. Consider that the results using the reclassified data were stronger, despite the fact that the two simple accountability cells contained only eight observations each.

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[10] Alternative classification schemes (1-3, 4, 5-7, and 1-2, 4, 6-7) yielded substantively similar results.

Second, since the reclassified Preparer and User group required fewer adjustments than the reclassified User Only group, but did not require significantly fewer adjustments than the reclassified Preparer Only group, it may be that subjects in the latter group continued to feel accountable to the user. That is, even though these subjects were told that the user was not their client and that the user would not be relying on the audit, they still acted as if the user were their constituent (in addition to the preparer).[11] Although accountability assessments did not appear to reflect such residual accountability (see Table 3), there was a pattern of results in subjects' total processing times (see Table 4)--and later in the analysis of required reserves-- that would be consistent with this phenomenon. The data in Table 4 show that the mean (median) TPT in the User Only group was only 286 (208) seconds, while the mean (median) TPT in the Preparer Only group was 509 (335) seconds, suggesting that processing complexity for some subjects in the latter group was quite high, even though subjects were supposed to be accountable only to the preparer. Although a comparison of the means proved to be statistically insignificant, a Wilcoxon rank-sum test (which would control for the skewness in the raw data) revealed that the TPT in the Preparer Only group was, in fact, significantly greater than the TPT in the User Only group ($Z = 1.52$, $p = .064$). This would be consistent with at least some of the Preparer Only subjects behaving as if they felt accountable to both sources.

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[11] This would not be unreasonable given the role auditors experience in the real world.

In summary, the contingency-table analyses provided only weak support (if any) for H2. Likely explanations for these results would appear to include subjects' inability to frame audit decisions in terms of being accountable only to the preparer, but could also include simply a lack of power in the statistical tests.

Accountability-reducing tactics

Hypothesis 3 predicted that auditors under conflicting accountability would be more likely to try to reduce their level of personal responsibility than would auditors under simple accountability. The use of accountability-reducing tactics was measured by asking subjects how likely they would be to consult with another audit partner from their firm regarding the inventory issue as part of the decision process. Responses were recorded along an 11-point scale with 0 = "Not Likely" and 10 = "Highly Likely". This data is summarized in Table 10. The average likelihood assessment across all cells was 5.93 (range 0-10) confirming that auditors use consultation relatively frequently in scenarios involving ambiguous issues. The mean likelihood assessment for consulting in the Preparer Only, User Only, and Preparer and User treatment groups were 5.20, 5.44, and 7.20 respectively. Under H3, subjects in the conflicting accountability treatment condition were predicted to be more likely to consult than subjects in either of the simple accountability conditions. This was tested using one-way analysis of variance, specifically by performing a planned comparison of cell 3 against the average of cells 1 and 2. Results of this analysis (see Table 10) show that the likelihood of consulting in cell 3 (7.20) was significantly greater than the average of the other two cells (5.32) ($F = 3.29$, $p = .038$ one-tail). The analysis also shows that the two simple

Table 10
Responsibility-Reducing Tactics

	Treatment Conditions			
Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Assessed Likelihood of Consulting [a]	5.20 / 6 (3.43) 0 – 10 n=15	5.44 / 5 (3.71) 1 – 10 n=16	7.20 / 8 (2.62) 2 – 10 n=15	5.93 / 7 (3.34) 0 – 10 N=46

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
(Prep & User) vs Both [b]	1	35.76	3.29	.038
Prep vs User [c]	1	0.44	0.04	.842
Error	43	466.74		

Omnibus ANOVA $R^2 = .07$

[a] Responsibility-reducing tactics were operationalized as the subjects assessed likelihood of consulting with another partner in their firm as part of the decision process for the audit issue in the case with 0 = "not likely" and 10 = "highly likely".
[b] One-tail test.
[c] Two-tail test.

accountability groups did not differ significantly from each other (F = 0.04, p = .842 two-tail). In summary, the consultation data appear to be consistent with H3, indicating that auditors under conflicting accountability are more likely to try to reduce personal responsibility for ambiguous decisions.

Distributive tactics

Finally, H4 predicted that auditors under conflicting accountability would be more likely to search for distributive solutions to resolve audit issues than auditors under simple accountability. Distributive solutions such as compromise were measured by having subjects assess how large a reserve they would require for the inventory issue. Subjects accountable only to the financial statement preparer (user) were predicted to propose relatively small (large) adjustments, whereas subjects accountable to both the preparer and the user were predicted to compromise by proposing more moderate sized adjustments (larger than those accountable only to the preparer, smaller than for those accountable only to the user). Data for this analysis are presented in Table 11. The mean reserves in the Preparer Only, User Only and Preparer and User treatment conditions were 35.3%, 48.1% and 36.7% respectively. Hypothesis 4 was tested by performing one-way analysis of variance on the data, specifically by performing planned comparisons of the conflicting accountability group versus each of the simple accountability groups. First, the mean reserve in the conflicting accountability condition (36.7%) was greater than the mean reserve in the preparer only condition (35.3%) but not significantly so ($F = 0.02$ $p = .447$ one-tail).[12] Second, the reserves in the conflicting accountability condition (36.7%) were also less than the reserves in the user only condition (48.1%) but not significantly so ($F=1.39$ $p=.123$ one-tail).[13] These results are not consistent with H4.

Because of the weak accountability manipulation noted earlier, the reserve data were also reanalyzed after reclassifying subjects according to their accountability assessments. This reclassification was performed as before. Subjects with assessments of 1-2 were classified as being accountable only to the preparer, 3-5 as being

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[12] A Wilcoxon rank-sum test found nearly identical results ($Z = 0.23$, $p = .408$ one-tail).

[13] A Wilcoxon rank-sum tests found nearly identical results ($Z = 1.10$, $p = .136$ one-tail)

Table 11
Compromise-Accountability Manipulation

Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Required Reserve [a]	35.3 / 20 (32.9) 0 – 80 n=15	48.1 / 50 (23.2) 20 – 90 n=16	36.7 / 40 (24.4) 0 - 80 n=15	40.2 / 45 (27.1) 0 – 90 N=46

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
Prep vs Both [b]	1	13.33	0.02	.447
User vs Both [b]	1	1,534.08	1.39	.123
Error	43	31,550.42		

Omnibus ANOVA $R^2 = .05$

[a] Compromise was measured using subjects' assessment of how large the reserve should be for the issue in the audit case from 0% to 100%.
[b] One-tail test.

accountable to both sources, and 6-7 as being accountable only to the user. The descriptive data for reclassified analysis are shown in Table 12. After reclassification, the mean reserves required by subjects who felt accountable to the preparer only, to the user only, and to both the preparer and the user were 21.3%, 56.3%, and 41.0% of the inventory cost respectively. These data were analyzed using the planned comparisons shown in Table 12. After reclassification, subjects who felt accountable to both sources proposed significantly larger reserves than did subjects who only felt accountable to the preparer (F = 3.76, p = .029 one-tail), but proposed significantly smaller reserves than

Table 12
Compromise-Accountability Assessment

Mean / Median StDev Range	Preparer Only (Prep)	User Only (User)	Preparer and User (Both)	Total
Required Reserve [a]	21.3 / 5 (31.4) 0 – 80 n=8	56.3 / 50 (23.2) 30 – 90 n=8	41.0 / 45 (24.5) 0 - 80 n=30	40.2 / 45 (27.1) 0 – 90 N=46

One-way ANOVA - Planned Comparisons

Comparison	d.f.	SS	F-Score	p- value
Prep vs Both [c]	1	2,463.55	3.76	.029
User vs Both [c]	1	1,468.82	2.24	.071
Error	43	28,145.00		

Omnibus ANOVA $R^2 = .15$

[a] Compromise was measured using subjects' assessment of how large the reserve should be for the issue in the audit case from 0% to 100%.

[b] Subjects were classified according to their ex-post accountability assessment. Subjects with assessments of 1-2 were classified as Preparer Only, 3-5 as Preparer and User, and 6-7 as User Only.

[c] One-tail test.

subjects who only felt accountable to the user (F = 2.24, p = .071 one-tail).[14] In summary, results using the raw data did not support H4, but the results using the reclassified data strongly supported H4.

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[14] Wilcoxon tests on the ranked data found similar results (Z = 1.93, p = .027 one-tail, and Z = 1.65, p = .050 one-tail, respectively). Also, alternative classification schemes (1-3, 4, 5-7, and 1-2, 4, 6-7) yielded substantively similar results.

Summary of Experiment 1

Experiment 1 provided mixed support for hypotheses 1-4. First, conflicting accountability does appear to motivate auditors to increase the complexity of their processing significantly during single-issue decision events (H1 supported). However, this increase in complexity appears to begin when auditors identify conflicting accountability sources rather than when they encounter the audit decision. Conflicting accountability did not lead to more complex processing after the decision was encountered. This distinction is important because the decision event of interest for auditors is probably the engagement rather than a single decision within the engagement. If this is true, the above results suggest that conflicting accountability motivates auditors to use increased cognitive effort throughout the engagement, a process that allows them to be better prepared to address ambiguous issues once they are encountered.

Second, while there is some evidence that auditors accountable to both the financial statement preparer and the financial statement user are less likely to require an audit adjustment for a single ambiguous issue than auditors accountable only to the financial statement user (H2 supported), there is no evidence that they are more likely to require an adjustment than auditors accountable only to the financial statement preparer (H2 not supported). However, the lack of support for this hypothesis may have been due to a combination of the weak accountability manipulation and low power in the tests.

Third, there is strong evidence that auditors who are accountable to both the financial statement preparer and the financial statement user are more likely to consult with other members of their firm regarding the decision. Insofar as consultation is a reasonable proxy for auditors' efforts to reduce their personal responsibility for a decision event, this suggests that conflicting accountability motivates auditors to use responsibility-reducing tactics (H3 supported).

Finally, there is some evidence that auditors facing a single ambiguous issue are more likely to resolve that issue using distributive solutions when they feel accountable to both the financial statement preparer and the financial statement user than when they feel accountable to one source or the other (H4 supported). It should be noted, however, that H4 was only supported when the data were classified according to their accountability assessments.

CHAPTER 5
EXPERIMENT 2

In Chapter 4, experiment 1 was used to examine auditors' decision behavior during a single-issue decision event. In this chapter, experiment 2 is used to test hypotheses involving auditors' decision behavior during a multiple-issue decision event. The primary difference between the two scenarios is that with multiple issues, additional tactics are available to the auditor.

Method

Overview

Experiment 2 was used primarily to examine hypothesis 5--about whether auditors use integrative tactics to resolve conflict. However, tests of hypothesis 3 are also replicated since responsibility-reducing tactics are also available in multiple-issue decision events. In this experiment, auditor subjects completed the same case as was used in the first experiment with a second ambiguous issue added to create a multiple-issue decision event. A few other minor changes were made to facilitate the administration of the case, but the content remained the same. In the case, auditors again played the role of the auditor of a division of a hypothetical medium-sized, privately-held manufacturing company. The parent company of the division was in the process of selling the division to another hypothetical medium-sized, privately-held manufacturing company, pending the results of the audit. Subjects were provided background materials on both companies, financial information for the division, engagement information from the audit planning memo, and information regarding two material audit issues discovered during the audit. Accountability was manipulated across two treatment groups by having subjects perform the audit for the buyer only (simple accountability) or for both the seller and the buyer (conflicting accountability). Two issues were encountered in the case, the first of which was the inventory issue from experiment 1. The second issue in the case involved a large past-due account receivable from a longstanding customer. Subjects were provided general information regarding the two issues, and several pieces of evidence regarding each. Both issues were left ambiguous. As part of the case, subjects were required to decide how to resolve the two issues. Dependent variables measuring decision outcomes, and decision tactics were gathered to test the hypotheses, and subjects provided demographic data to assist in the analysis of the results.

Case Materials

The case development was described in the previous chapter. The final case in experiment 2 consists of several pages of information regarding the companies and the engagement, some letterhead for a post-decision memo, and a questionnaire (see Appendix B). In the second experiment, only two versions of the case were used. In the first version, Flexicon (the buyer) is a recurring client and GlassCoat (the seller) is not. Subjects are told that their firm has been hired by Flexicon to perform an audit of Plastic Division, and that they are the primary partner on the engagement. This version makes it clear that only Flexicon will be relying on the audit. In the second version, both GlassCoat and Flexicon are recurring clients. Subjects are told that their firm has been hired by both companies to perform an audit of Plastic Division, and that they are the primary partner on the engagement. This version makes it clear that both parties will be relying on the audit. The information contained in the body of the case was described in Chapter 4. At the end of the case, both issues are presented simultaneously (on the same page), and the case emphasizes that the two issues were the only material issues discovered during the audit. The first issue is the inventory issue. Evidence regarding this issue is unchanged from experiment 1. The second issue involves a large past-due receivable that may or may not be collectible. As with the inventory, several pieces of evidence regarding the receivable are provided, some of which support keeping the receivable at face value, and some of which support writing it off as a bad debt (or at least establishing a reserve). Evidence regarding the two issues is also presented simultaneously (on the same page) in the case.

The case in the second experiment was presented in a booklet rather than on computer disk. Processing complexity was not examined in this experiment, and it was hoped that providing a low-tech instrument to managers and partners would facilitate a better response rate for the second experiment. An introductory letter was also included in the case packet. The final instrument consisted of the booklet containing the case, some letterhead, and the questionnaire.

Subjects

Subjects were recruited by contacting individuals at the offices of six large international accounting firms in the southwestern United States. These individuals committed certain numbers of managers and partners in their respective offices to participate in the study, at which time the indicated number of case packets were sent to the contact person. Packets were unmarked and contained randomized versions of the case. Contact persons distributed the packets to managers and partners at their offices along with a memo from them explaining that their firm was taking part in the study, and emphasizing the importance of their cooperation. Subjects completed the instrument on their own and then either sent the completed instruments directly to the author, or gave the completed instruments to the contact person, who then sent them to the author. Subjects' anonymity was maintained in all cases.

Subjects for experiment 2 included 24 professional auditors from the offices of six large international accounting firms (see Table 13). Subjects included six partners and 18 managers and senior managers, and averaged 13.2 years of public accounting experience (range 5 - 30 years). On average, 38% of subjects' clients had material inventories (range 0% – 80%) and 82% of subjects' clients had material receivables (range 0% – 100%). Based on this information, the subjects participating in experiment 2 appeared to be sufficiently experienced to complete the task realistically.

Table 13
Distribution of Subjects Among Treatment Conditions

	User Only (User)	Preparer and User (Both)	Total
Firm 1 [a]	4	6	10
Firm 2	2	2	4
Firm 3	2	1	3
Firm 4	1	2	3
Firm 5	0	3	3
Firm 6	1	0	1
Total	10	14	24

[a] Subjects were managers and partners from six large international accounting firms. envelope.

Procedures

Subjects began by opening the packet, which contained a memo from the contact person, an introductory letter from the author, a booklet containing the audit case, some letterhead for the subject's memo, a questionnaire, and a stamped return envelope. After reading the instructions, subjects completed the case. Information in the case was presented in the same order as in the first experiment. The first two pages presented the background regarding the two companies and the situation involving the negotiations and the possible transfer of the division. They also provided the accountability manipulation. Subjects then read through the rest of the case until coming to the page describing the two audit issues. Subjects were instructed on this page that the next page contained evidence regarding the two issues and that they would need to decide how to resolve the issues at that time. The evidence page provided several pieces of evidence for each issue, and required subjects to decide whether or not to propose an adjustments for each (yes/no). Subjects were allowed to go back and review any or all case materials prior to recording their decisions. Ultimately, subjects recorded their decisions on the evidence page.

After indicating whether or not to require zero, one, or two adjustments, subjects were asked to indicate how confident they were with their decision along an 11-point scale with 0 indicating "not confident" and 10 indicating "very confident". They were then asked how likely they would be to require an adjustment for the each of the two issues, from 0 indicating "not likely" and 10 indicating "very likely". Subjects were asked to indicate the size of the reserves they would require (if any) for each issue, from 0% ("no reserve") to 100% ("full reserve"). Finally, subjects were asked how likely they would be to consult with another audit partner in the firm as part of the decision process, again along an 11-point scale with 0 indicating "not likely" and 10 indicating "very likely". At this point, subjects completed the memo and the post experimental questionnaire, sealed the materials in the return envelope, and either sent it directly to the author, or gave it to the contact person who sent it directly to the author.

Dependent Variables

Experiment 2 used several dependent variables. The use of *accountability-reducing tactics* was again measured by having subjects assess how likely they would be to consult with other audit partners in the firm regarding the issues as part of the decision process. The use of *integrative tactics* was captured by asking subjects to indicate whether they would require audit adjustments for the inventory issue and for the receivable issue. Subjects could require zero, one, or two adjustments. Since preparers were assumed to prefer zero adjustments, and users were assumed to prefer two adjustments, it was also assumed that requiring only one adjustment would represent trading off issues--that is, requiring one adjustment but passing on the other is essentially resolving one issue in favor of each source. A second measure, which would take into account the strength of subjects commitment to the option, was generated by asking subjects to assess how likely they would be to require an adjustment for each issue.

Results

Descriptive Data

A total of 33 instruments were distributed to participants at offices of six large international accounting firms. Of the 33 instruments, 25 were returned yielding a 76% response rate. Of the 25 returned instruments, 10 were from subjects in the User Only condition and 15 were from subjects in the Preparer and User condition. However, one instrument was excluded from the Preparer and User condition because it was completed by someone who did not have the appropriate experience level, leaving a total of 24 usable instruments.[1]

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[1] The subject who completed the excluded instrument was an audit senior. Subjects were required to have reached the level of audit manager. Leaving this instrument in the analyses did not change the consultation conclusion. It was unclear how to treat this subject in the tests of integrative and distributive tactics because he or she was the only subject who passed on both adjustments.

Descriptive data for the two accountability conditions are shown in Table 14. For each item, a t-test (two-tail) was used to identify significant differences between cells. These tests revealed that only one of the descriptive variables (case realism) varied systematically among cells. Subjects averaged 11.6 years of general experience in the User group and 14.4 years of general experience in the Both group ($t = 0.85$, $p = .402$). Issue-specific experience was measured as the percentage of current clients who had significant inventories and receivables. Inventory experience averaged 36% in the User group and 40% in the Both group ($t = 0.39$, $p = .699$), while receivables experience averaged 75% in the User group versus 88% in the Both group ($t = 1.28$, $p = .213$). Subjects found the case to be realistic, as their assessments of case realism averaged 4.5 on a seven-point scale across all subjects. However for some reason, these assessments differed between treatment groups. The mean assessment in the User group was 5.2, while the mean assessment in the Both group was 4.0 ($t = 1.97$, $p = .062$).[2] Subjects believed the inventory issue to be moderately material, as their materiality assessments averaged 4.6 on a seven-point scale across all subjects. This did not differ between treatment conditions ($t = 0.29$, $p = .773$). Subjects also believed the receivable issue to be moderately material, as their materiality assessments averaged 5.5 on a seven-point scale across all subjects. This also did not differ between treatment conditions ($t = 0.33$, $p = .742$). Finally, subjects again tended to view themselves as slightly more conservative than auditors in general. The mean assessment of whether other auditors were generally too accommodating or too tough averaged 3.5 on a seven-point scale (1 = too accommodating, 7 = too tough) across all subjects. This did not differ between

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[2] Including realism in the consultation analysis had no significant effect on the results.

Table 14
Descriptive Information

Mean (St Dev) Range	User Only (User) n=10	Preparer and User (Both) n=14	Total N=24
General Experience [a]	11.6 (7.8) 6-30	14.4 (7.8) 5-30	13.2 (7.8) 5-30
Inventory Experience [b]	0.36 (0.26) 0-.75	0.40 (0.27) 0-.80	0.38 (0.26) 0-.80
Receivable Experience [b]	0.75 (0.31) 0-100	0.88 (0.16) 50-100	0.82 (0.24) 0-100
Case Realism [c]	5.2 (0.9) 4-6	4.0 (1.8) 1-7	4.5 (1.6) 1-7
Inventory Materiality [d]	4.5 (1.3) 3-7	4.7 (2.1) 2-7	4.6 (1.7) 2-7
Receivable Materiality [d]	5.4 (0.8) 4-7	5.6 (1.5) 2-7	5.5 (1.2) 2-7
Relative Conservatism [e]	3.7 (0.8) 3-5	3.4 (0.8) 2-5	3.5 (0.8) 2-5

[a] General experience was measured as the number of years the subject had been in public accounting.

[b] Specific experience was measured as the percentage of the subjects clientele that had significant inventories and receivables respectively.

[c] Realism was assessed by the subject along a 7-point scale with 1 = "not realistic" and 7 = "very realistic."

[d] Materiality was assessed for each issue along a 7-point scale with 1 = "not material" and 7 = "highly material."

[e] Relative conservatism was measured by asking subjects to assess along a 7-point scale whether they believed most auditors to be 1 = "too accommodating" and 7 = "too tough." Low assessments should be associated with relatively conservative subjects.

treatment conditions (t = 0.84, p = .412). In summary, other than the case realism assessment, there do not appear to be systematic differences in subjects' experience levels or perceptions between the two experimental conditions.

Manipulation Checks

In order to test whether the accountability manipulation in the case was successful, subjects were asked the following question in the post experimental questionnaire: "To whom did you feel most responsible for your decision?". Subjects responded by giving their assessment along a seven-point scale with 1 being "to GlassCoat only" (the preparer) and 7 being "to Flexicon only" (the user). Descriptive results regarding this manipulation are included in Table 15. Subjects' accountability assessments in the User Only (simple) and Prepare and User (conflicting) conditions averaged 5.50, and 3.85 respectively. A t-test showed that the mean accountability assessment in the User Only group was significantly greater than the mean accountability assessment in the Preparer and User group (t = 5.61, p < .001 two-tail). Hence, the accountability manipulation appears to have been successful (although Table 15 again suggests that some dilution was occurring in the User Only group.

Hypothesis Tests

Accountability-reducing tactics

Hypothesis 3 predicted that auditors under conflicting accountability would be more likely to try to reduce their level of personal responsibility through consultation

Table 15
Accountability Data

Accountability Assessment [a]	User Only Group n=10	Preparer and User Group n=13 [c]
7	2	0
6	2	0
5	5	0
4	1	12
3	0	0
2	0	1
1	0	0
Mean (St Dev)	5.5 [b] (0.97)	3.85 [b] (0.55)

[a] Accountability was assessed by asking subjects, "To whom did you feel most responsible for your decision?", and having them respond along a 7-point scale with 1 = "GlassCoat only" and 7 = "Flexicon only."
[b] Mean accountability assessment was significantly different between the two treatment groups (t = 5.16, p < .001).
[c] One subject in the Both group failed to indicate an assessed level of accountability.

than would auditors under simple accountability. A test of this could be replicated in the multiple-issue setting as the tactic is available under both single-issue and multiple-issue conditions. As in experiment 1, auditors were asked how likely they would be to consult with other audit partners regarding the issues as part of the decision. Responses were recorded along an 11-point scale with 0 = "Not Likely" and 10 = "Highly Likely." This data is summarized in Table 16. The results were even stronger than in the first experiment, with the average likelihood assessment across all subjects being 6.96 (range 1-10). The mean likelihood assessments for consulting in the User Only and Preparer and User treatment groups were 5.30 and 8.14 respectively. A t-test revealed that auditors under conflicting accountability were significantly more likely to

Table 16
Responsibility-Reducing Tactics

	Treatment Conditions		
Mean (St Dev) Range	User Only n=10	Preparer and User n=14	Total N=24
Assessed Likelihood of Consulting [a]	5.30 [b] (3.02) 1-7	8.14 [b] (2.21) 3-10	6.96 (2.90) 1-10

[a] Responsibility-reducing tactics were operationalized as the subjects' assessed likelihood of consulting with another partner in their firm as part of the decision process for the audit issues in the case with 0 = "not likely" and 10 = "highly likely".
[b] The mean likelihood of consultation was significantly different between the two treatment groups (t = 2.67, p = .007 one-tail).

consult than were auditors under simple accountability (t = 2.67, p = .007 one-tail). This is consistent with the results in experiment 1, and supports H3.

Integrative tactics

Hypothesis 5 predicted that auditors would be more likely to use integrative tactics under conflicting accountability than under simple accountability. Integrative tactics were operationalized in this study as the likelihood that auditors would trade off issues. That is, given two ambiguous issues, auditors under conflicting accountability were predicted to require one adjustment and pass on the other adjustment, whereas auditors accountable only to the user were predicted to require two adjustments. Decision outcomes were measured in two ways. First, subjects provided yes/no responses to the question of whether they would require an adjustment for each issue. This data is summarized in Table 17. All subjects required at least one adjustment, and 14 required

Table 17
Integrative Tactics – Dichotomous Responses

	User Only	User and Preparer	Total
One Adjustment [a]	2 (20%) [b]	8 (57.1%) [b]	10
Two Adjusts [a]	8 (80%)	6 (42.9%)	14
Total	10	14	24

[a] Subjects were classified as having one (two) adjustment(s) if in their dichotomous responses, they required only one (two) adjustment(s). No subjects required no adjustments, and in all cases of only one adjustment being required, it was the receivable that required adjustment.
[b] Subjects in the User and Preparer group were significantly more likely to require one adjustment and pass on the other than subjects in the User Only group ($\chi^2 = 3.31$, $p = .069$; Fisher's exact $p = .080$).

two adjustments. The two treatment groups were compared using contingency table analysis. While 80% of the subjects in the User Only group required two adjustments, 57% of subjects in the Both group required only one adjustment. This difference was statistically different (Fisher's exact p = .080), consistent with subjects under conflicting accountability being more likely to trade-off issues than auditors under simple accountability.

Second, subjects provided likelihood assessments regarding whether they would require an adjustment for each issue. Adjustment categories were then assigned based on these likelihood assessments. For each issue, likelihood assessments greater than or equal to 5 (50%) were assumed to have led to an adjustment, whereas likelihood assessments less than 5 (50%) were assumed to have led to a passed adjustment. In other words, subjects who had two likelihood assessments greater than or equal to 5 were categorized as requiring two adjustment. Subjects who had only one likelihood assessment greater than or equal to 5 were categorized as requiring only one adjustment.[3] Data classified by likelihood assessment is summarized in Table 18. All subjects required at least one adjustment, and 13 required two adjustments. The two treatment groups were also compared using contingency table analysis. While 80% of the subjects in the User Only group still required two adjustments, 64% of subjects in the Both group now required only one adjustment. This difference was also statistically different (Fisher's exact $p = .040$). In summary, using either the dichotomous data or the likelihood assessments, the results appear to be consistent with H5.

Additional analyses

Two competing explanations for the above results need to be addressed as part of the tests of H5. One competing explanation is that there were no trading-off tactics going on at all; that the results simply reflected the same effects found in the testing of H2 in experiment 1. In other words, conflicting accountability simply reduces the biases and/or heuristics that occur under simple accountability for the individual issues. To examine this possibility, the number of inventory adjustments in the conflicting accountability group in experiment 2 was compared to the number of inventory adjustments in the conflicting accountability group in experiment 1.[4] Under this competing explanation, there should be no difference in the number (percentage) of inventory adjustments required between the single-issue group and the multiple-issue

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[3] No subjects had two likelihood assessments less than 5.

[4] Since no one required an adjustment for the receivable in experiment two, this resulted in a comparison of inventory treatments between a group where a trade-off was possible and a group where it was not.

Table 18
Integrative Tactics – Likelihood Assessments

	User Only	User and Preparer	Total
One Adjustment [a]	2 (20%) [b]	9 (64.3%)	11
Two Adjusts [a]	8 (80%)	5 (35.7%)	13
Total	10	14	24

[a] Subjects were classified as requiring one adjustment if their likelihood assessment for one issue was less than 50%, or as requiring two adjustments if their likelihood assessments for both issues was greater than 50%. In no case were both assessments less than 50%, and in 18 out of 24 cases the likelihood assessment for the inventory adjustment was less than the likelihood assessment for the receivable adjustment.
[b] Subjects in the User and Preparer group were significantly more likely to require one adjustment and pass on the other than subjects in the User Only group ($\chi^2 = 4.61$, $p = .032$; Fisher's exact $p = .040$).

group. However, contingency table analysis using the dichotomous data (not shown) revealed that subjects were significantly more likely to pass on the inventory adjustment when tradeoffs were possible than when they were not. While 30% of the subjects in the single-issue group passed on the inventory adjustment, 57% of subjects in the multiple-issue group passed on the inventory adjustment ($\chi^2 = 2.97$, $p = .085$).[5] Thus, there appears to be an effect other than just the reduction of heuristics and biases for individual issues.

A related competing explanation for the above results is that the presence of an additional accountability source under conflicting accountability simply reduces the subject's likelihood assessments of requiring an adjustment for both issues. This downward shift for both issues could then have pushed the issue with the lower likelihood below the 50% level, leading to the observed results, even though no conscious use of trading-off tactics occurred. To shed some light on this possibility, the "lower" likelihood assessments (i.e. the assessments for the issue with the lower likelihood assessment for each subject), and the "higher" likelihood assessments (i.e., the assessments for the issue with the higher likelihood assessment for each subject) were compared across treatment groups. If the presence of the additional source simply shifted both assessments downward, both of these comparisons should be significant. However, the results of t-tests (not shown) showed that while the mean "lower" likelihood assessment in the Both group (3.93) was significantly less than the mean "lower" likelihood assessment in the User group (5.70) ($t = 1.89$, $p = .036$ one-tail), the mean "higher" likelihood assessment in the Both group (8.00) was no different than the mean "higher" likelihood assessment in the User group (8.00) ($t = 0.00$, $p = .500$ one-tail). In other words, only the assessment for the "lower" issue was adjusted downward to the point where trading-off was possible. The assessment of the "higher" issue was unaffected.

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[5] When the likelihood assessment classifications were used, the results were even stronger ($\chi 2 = 4.64$, $p = .031$).

In summary, H5 appears to be supported. Under conflicting accountability, auditor subjects were more likely to require one adjustment and pass on the other--an observed behavior that would be consistent with trading off issues between accountability sources. Post-hoc analyses provide additional support that the observed behavior is due to auditors trading-off issues, rather than two competing explanations.

Summary of Experiment 2

Experiment 2 provided strong support for both H3 and H5. First, auditors who are accountable to both the financial statement preparer and the financial statement user were shown again to be more likely to consult with other members of their firm regarding the decision. Again, insofar as consultation is a reasonable proxy for auditors' efforts to reduce their personal responsibility for a decision event, this suggests that conflicting accountability motivates auditors to use responsibility-reducing tactics (H3 supported).

Finally, there is strong evidence that auditors who need to resolve multiple issues in the same decision event are more likely to trade off those issues when they feel accountable to both the financial statement preparer and the financial statement user than when they are accountable to the user. Insofar as requiring one adjustment but passing on the other is a reasonable proxy for auditors' use of integrative tactics, this suggests that conflicting accountability motivates auditors to use integrative tactics when possible (H5 supported).

CHAPTER 6
CONCLUSION

Summary of Findings

This study examined the effects of conflicting accountability on auditors' decision behaviors in single-issue and multiple-issue decision events. Two experiments were conducted wherein auditor subjects had to resolve either one or two issues under conditions intended to invoke either simple or conflicting accountability. The results of these experiments revealed support for several hypotheses regarding auditor behavior under conflicting accountability. Conflicting accountability appears to motivate auditors to use more complex decision processing throughout the decision event. There is evidence that under simple accountability, auditors tend to use relatively simple processing reflecting processing biases and/or use of the acceptability heuristic. However, there is only weak evidence that conflicting accountability reduces the effects of these heuristics and biases. Finally, there is strong evidence that conflicting accountability motivates auditors to use various decision tactics as part of the decision process. Both experiments provide evidence that auditors making ambiguous decisions under conflicting accountability are more likely to consult with other auditors in their firm--supposedly to try to reduce their personal responsibility for the decision event. They also provide support for auditors' use of negotiation-type tactics. When multiple issues are available (experiment 2), conflicting accountability appears to motivate auditors to trade off issues between sources (an integrative solution). And when only one issue is available (experiment 1), conflicting accountability appears to motivate auditors to make use of compromise (a distributive solution).

In addition to the results of the hypothesis tests, the experiments provide several notable insights. For example, accountability was manipulated primarily by placing the subjects in different roles as the auditor rather that having them participate in any formal evaluative reckoning. Although this manipulation did prove to be relatively weak, it does suggest that experienced auditors may frame decision tasks according to the roles they play, which then appears to affect their decision processes, decision outcomes, and the use of decision tactics.

Along the same lines, the results of the experiment also suggest that experienced auditors may view the generic role of auditor as being accountable to the financial statement user. This leads auditor to anchor their accountability assessments on the financial statement user, and makes it very difficult to create simple accountability to the financial statement preparer. It was relatively easy to invoke simple accountability to the financial statement user and to invoke conflicting accountability to both the financial statement preparer and the financial statement user. The implications of this are important to the understanding of auditor independence, and to the interpretation of prior research showing that auditors are more likely to make decisions in favor of their clients when under pressure from those clients. Given the aloofness of simple accountability to preparers (who are traditionally viewed as clients), such studies may not be reflecting the effects of self-serving bias, but rather a reduction of the conservative bias inherent in the role of being an auditor. In other words, this suggests that the addition of moderate client pressure may be creating conflicting accountability, which may motivate auditors to exert more cognitive effort and pay more attention to information on both sides of ambiguous audit issues.

The results of the experiment also provide some support for the model as a descriptive processing model of accountability effects. The model's predictions regarding the use of decision tactics were supported in all three cases (consultation, compromise, and trade offs). The model's predictions regarding processing complexity were also supported. However, the processing portion of the model (i.e. acceptability and comparison tests) may not have been tested at all in the experiments because the accountability manipulation and the decision encounter did not occur at the same time. Subjects also knew from the beginning of the case that they were going to encounter a decision during the case. This resulted in conflicting accountability increasing the complexity of processing prior to the decision, a behavior that is not specifically addressed in the model. Hence no conclusions can be made regarding the descriptive nature of the model.

Limitations and Future Research

There are several characteristics of the experiments that introduce possible limitations in the ability to project the results across traditional audit settings. First, as noted earlier, the case involved an atypical audit setting involving the buyer and the seller of a division rather than a traditional preparer-client and third-party user. This was done intentionally in order to invoke simple accountability, a condition that is probably uncommon in more traditional audit settings. Although the professionals assisting in the case development did not feel that the atypical setting would change the way auditors approached the decision, and although subjects' realism assessments indicated that subjects believed the case to be fairly realistic, the atypical setting should be considered when assessing the external validity of the results.

Second, the audit case did not provide all of the information that would traditionally be available during an audit, and subjects were not able to search for additional information, or postpone making a decision until addition evidence could be gathered (Gibbins and Newton 1994). The limited amount of information in the case was also by design, as providing subjects with too much information tends to reduce their willingness to participate or to complete the case once they have begun. Although this may introduce questions regarding external validity, it should be pointed out that in real audit settings, issues often remain ambiguous even after delays for extensive information search. Hence, despite the lack of information in the case, the decision setting is actually quite representative.

Finally, there is always some concern when the experiment is performed out of the immediate control of the experimenter. For example, although response rates tended to be relatively high for this type of experiment, many of the instruments were not returned, leaving open the question of self-selection bias. And since the experimenter was not present when subjects completed the first experiment, there is no way to be certain that subjects performed the case without being interrupted. This is especially a concern given the existence of some extreme processing-time observations. There is little that can be done to identify the degree to which the first situation exists because individuals to whom instruments were distributed remained anonymous.

However, the second situation could be controlled for by eliminating extreme observations. As noted earlier, this was done on the processing-time data without substantively affecting the results.

Future research regarding the effects of accountability in audit settings should continue to address the question of the degree to which accountability effects occur during decision processing versus decision reporting. The use of tactics certainly provides strong support for the idea that the effects may occur during the reporting process. However, the increased complexity evident in experiment 1 supports the possibility that processing also is affected. Future research should also address the possibility that auditors under moderate accountability pressure from clients are in fact behaving as if they are under conflicting accountability, rather than simple accountability to their client. Such research could have serious implications for understanding auditor independence and the degree to which it exists when auditors are making audit decisions. Finally, future research should also be directed at the different negotiation tactics used by auditors during the auditor-client negotiations suggested by recent models. For example, research could investigate more fully auditors' use of integrative tactics. With notions such as materiality, both income-increasing and income-decreasing adjustments, as well as disclosure options (versus adjustment options) at their disposal, auditors have a plethora of tactics to choose from in trying to resolve issues under conflicting accountability.

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APPENDIX A
INSTRUMENT FOR EXPERIMENT 1

Dear Participant:

My name is Kevan Jensen; I am a doctoral candidate at the University of Florida. I wish to invite you to participate in this research study, the purpose of which is to learn more about auditors' decision making. In particular, I am interested in **how** auditors make decisions. In the accompanying packet, you will be provided with an audit case where you will be asked to make a decision using the information provided in the case. You will then be asked to explain your decision in a memo. You should be able to complete the case in less that 25 minutes.

This study concerns individual decisions; hence, it is important that you work independently of other members of your firm, many of whom are also participating in this study. In reporting the study's results, all individuals and their firms will remain anonymous. When you complete the case, please seal all of the materials in the stamped, addressed envelope provided and mail it directly to me. Please return the materials to me even if you decide you do not wish to participate.

Thank you very much for your time and cooperation.

Kevan Jensen, CPA

The following disclaimer is required by the University of Florida for all research studies involving human participants:

You will experience no discomforts or risks during this study, and there are no immediate benefits of participation. You do not have to answer any question you do not wish to answer. Participation is completely voluntary, and you are free to discontinue your participation at any time without prejudice. No compensation will be awarded. If you have any questions or concerns about the case, please call me (405-325-5789) or my immediate supervisor, Doug Snowball (352-392-8878). If you have any concerns regarding your rights as a participant in the study, please call the University of Florida Institutional Review Board at 352-393-0433.

INSTRUCTIONS:

To complete this case, please follow these instructions:

1. Insert the accompanying diskette into your computer's floppy drive.
2. Choose Run from the Start menu.
3. In the Command Line field of the Run dialog box, type **a:\START.EXE** and click OK.
4. The program will take a few moments to load, after which a window will appear allowing you to select the case file.
5. Select the file called **CASE** and click Open.
6. At this point, the case will be presented to you on the screen. All further instructions will be provided by the program itself as you proceed.
7. Attached is some letterhead for your memo, and a questionnaire to be completed at the conclusion of the case. Please do not look at the questionnaire until you have completed the case.

Screen 1

Dear Participant,

Thank you, for your participation in this study. This program contains a short audit case for you to complete. The case will proceed as follows. Once you begin the case, you will be presented with several screens in sequence that will provide you with information regarding a hypothetical audit and a particular issue arising during the audit. Please read through these screens as they are presented to you, keeping in mind that you will have the opportunity to review any or all of this information later in the case prior to making any decisions. Following this series of screens, you will be asked to make a decision regarding the audit issue. At that point, you can immediately enter your decision into the program, or you can delay your decision until after you review the information from the earlier screens regarding the audit and the audit issue. If you choose to first review the earlier screens, you can then make your decision at any time by returning to the decision screen and entering your decision into the program. Once you have made your decision, the program will conclude by providing you with instructions about writing the memo on the accompanying letterhead and completing the accompanying questionnaire. Please pay close attention to these instructions. During the program, you will be able to interact with the program using the mouse and/or by pressing certain keys. Although I hope you don't choose to do so, you may exit the program at any time by clicking **<FILE>** on the menu bar above, and then clicking **<QUIT>**.

When you are ready to begin the case, please hit **<ENTER>**.

Screen 2 [Simple Accountability-Preparer Only]

Background Information

Your firm has audited **GLASSCOAT INC** for several years. GlassCoat is a privately-held company that specializes in coating glass products with chemicals that reduce or enhance the type and amount of light allowed through the glass. It was founded over three decades ago and is currently a leader in the glass-coating market. You have been the primary partner on the GlassCoat audit for three years.

GlassCoat is comprised of three divisions--Consumer Glass Division, Advanced Glass Division, and Plastic Division. Of the three, Plastic Division is the only one that coats plastic products. Although all three divisions are profitable, GlassCoat's owners have not been satisfied with Plastic Division's performance. They have generally lost interest the plastics market, and have been looking to spin off the division for some time.

Screen 3 [Simple Accountability-Preparer Only]

Current Events

GlassCoat is currently involved in negotiations with another company named **FLEXICON INC** who is interested in purchasing Plastic Division from your client. Flexicon is a privately-held company that manufactures plastic containers in all shapes and sizes. Flexicon incorporated 25 years ago, and has since become a leader in the plastic-container market. Flexicon about the same size as GlassCoat in both sales and total assets. Your firm provides **no** services to Flexicon.

The owners of GlassCoat have asked your firm to perform an audit of Plastic Division to help them determine a selling price for the division. An important caveat about this audit is that your client (GlassCoat) will be the **only** party relying on the audit. Flexicon is bringing in its own audit firm to evaluate Plastic Division's financial statements. Independent appraisals will be obtained for most of the fixed assets. GlassCoat's owners are anxious to see the results of your audit, as they are hopeful of negotiating a favorable selling price for the division.

Screen 2 [Simple Accountability-User Only]

Background Information

Your firm has audited **FLEXICON INC** for several years. Flexicon is a privately-held company that manufactures plastic containers in all shapes and sizes. Flexicon incorporated 25 years ago, and has since become a leader in the plastic-container market. Its chief products are sold to paint and chemical manufacturers, and increasingly to waste-disposal companies. You have been the primary partner on the Flexicon audit for three years.

Flexicon is comprised of a single division. Flexicon is quite profitable, and its owners have been looking for a way to expand into other areas of the plastics market, preferably by purchasing existing operations from someone.

Screen 3 [Simple Accountability-User Only]

Current Developments

Flexicon is currently involved in negotiations with another company named **GLASSCOAT INC** about purchasing one of their divisions called Plastic Division. GlassCoat is a privately-held company that specializes in coating glass products with chemicals that reduce or enhance the type and amount of light allowed through the glass. GlassCoat was founded over three decades ago and is currently a leader in the glass-coating market. GlassCoat is about the same size as Flexicon in both sales and total assets. Your firm provides **no** services to GlassCoat.

The owners of Flexicon have asked your firm to perform an audit of Plastic Division to help them determine a purchase price for the division. An important caveat about this audit is that your client (Flexicon) will be the **only** party relying on the audit. GlassCoat is having its own audit firm evaluate Plastic Division's financial statements. Independent appraisals will be obtained for most of the fixed assets. Flexicon's owners are anxious to see the results of your audit, as they are hopeful of negotiating a favorable purchase price for the division.

Screen 2 [Conflicting Accountability]

Background Information

Your firm has audited both **GLASSCOAT INC** and **FLEXICON INC** for several years. GlassCoat is a privately-held company that specializes in coating glass products with chemicals that reduce or enhance the type and amount of light allowed through the glass. GlassCoat was founded over three decades ago and is currently a leader in the glass-coating market. You have been the primary partner on the GlassCoat audit for three years.

GlassCoat is comprised of three divisions--Consumer Glass Division, Advanced Glass Division, and Plastic Division. Of the three, Plastic Division is the only one that coats plastic products. Although all three divisions are profitable, GlassCoat's owners have not been satisfied with Plastic Division's performance. They have generally lost interest in the plastics market, and have been looking to spin off the division for some time.

Flexicon is also a privately-held company that manufactures plastic containers in all shapes and sizes. Flexicon incorporated 25 years ago, and has since become a leader in the plastic-container market. Its chief products are sold to paint and chemical manufacturers, and increasingly to waste-disposal companies. You have been the primary partner on the Flexicon audit for three years.

Flexicon is comprised of a single division. Flexicon is quite profitable, and its owners have been looking for a way to expand into other areas of the plastics market, preferably by purchasing existing operations from someone.

Screen 3 [Conflicting Accountability]

Current Developments

GlassCoat and Flexicon are currently involved in negotiations about Flexicon purchasing Plastic Division from GlassCoat. GlassCoat and Flexicon are about the same size in both sales and total assets.

The owners of the two companies have asked your firm to perform an audit of Plastic Division to help them determine a transfer price for the division. An important caveat about this audit is that **both** of your clients (GlassCoat and Flexicon) will be relying on the audit. Independent appraisals will be obtained for most of the fixed assets. The owners of both companies are anxious to see the results of your audit, as each is hopeful of negotiating a price for the division that is favorable to them.

Screen 4

Audit Information

Assume you are also the primary partner on the audit of Plastic Division. After carefully planning the audit, you include the following items in the planning memo:

1. The audit of Plastic Division is to be a regular GAAS audit.
2. Plastic Division's assets comprise approximately 20% of GlassCoat's total assets.
3. Plastic Division's management appears to be of high integrity.
4. Plastic Division's net income for the last 12 months was $523,000.
5. Because of the nature of the audit, materiality for proposed audit adjustments is set at $50,000 (approximately .1% of total assets).

Screen 5

Balance Sheet

Plastic Division's unaudited balance sheet is shown below.

Plastic Division
Balance Sheet

Assets:		Liabilities and Equity:	
Cash	2,072,000	Accounts Payable	4,767,000
Accounts Receivable - net	7,609,000	Accrued Expenses	5,202,000
Inventories	14,641,000	Other Current Liabilities	1,068,000
Other Current Assets	2,726,000	Long-Term Debt	20,975,000
Plant & Equipment - net	31,072,000	Stockholders Equity	26,108,000
Total	58,120,000	Total	58,120,000

Screen 6

Description of Audit Issue

During your audit of Plastic Division, the following issue arose. It was the only material issue to arise during the audit. As the primary partner on the audit, you must decide how to resolve this issue and then explain your decision in a memo to your client.

A slow-moving item in Plastic Division's inventory was discovered during analytical procedures, where the staff noted that the inventory turnover ratio for the item had decreased significantly from last year. While the ratio had hovered around 4 throughout all of last year, it was nearly 0 for the last two quarters. The original cost of the inventory was $400,000. Due to its specialized nature, it has no scrap value.

Use the evidence on the following screen to decide whether to leave the inventory at cost, or whether to require an adjustment to create a reserve. Once you have made your decision, use the accompanying letterhead to write your memo to your client justifying your decision.

Screen 7

Evidence

The audit workpapers document the following evidence regarding the issue in question.

A physical inspection of the inventory in question indicated that the item exists and appears to be in saleable condition.

According to Plastic's sales manager, sales of the item slowed several months ago when Plastic's competitors began selling a technologically superior item at a price only slightly higher than the item in question. Recent attempts to sell the inventory domestically at cost have not been successful.

According to Plastic Division's general manager, the reason the item has not been scrapped is that they have recently begun to sell the item in Canada, where there is less competition. Initial success there has led her to believe that they will be able to sell all of the inventory to an increasing number of customers there.

A review of open orders received after the balance sheet date revealed a moderate increase in orders of the item from foreign customers.

How would you resolve this issue?

_____Leave the inventory at cost _____Require an audit adjustment

Screen 8

How confident do you feel about your decision (circle one)?

0	1	2	3	4	5	6	7
not confident							very confident

Screen 9

How large a reserve (if any) would you propose that Plastic Division establish for the inventory item (circle one)?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
no reserve										full reserve

Screen 10

How likely would you have been to consult with another partner in your firm regarding the inventory issue (circle one)?

0	1	2	3	4	5	6	7
not likely							very likely

Screen 11

Thank you for completing this part of the audit case. Having made the decision, please use the following instructions to complete the case and to return the materials to myself.

1. Write your memo on the accompanying letterhead by simply listing your reasons for deciding as you did. Such a list will be easier to interpret than a formal memo.

2. Once you have completed your list, please complete the questionnaire as accurately and completely as possible.

3. Finally, once you have completed the memo and the questionnaire, exit the program and place (1) the memo, (2) the questionnaire, and (3) the diskette in the accompanying pre-addressed stamped envelope and mail it back to me.

Once again, thank you very much for your participation.

To end this program simply hit **<ENTER>**.

[Simple Accountability-Preparer Only]

Company Letterhead (please write your memo here)

TO: Maida Heitner, CFO of **GlassCoat Inc.**

FROM: The partner in charge of the Plastic Division audit

RE: Audit Issues

[Simple Accountability-User Only]

Company Letterhead (please write your memo here)

TO: Jim McCormick, CFO of **Flexicon Inc.**

FROM: The partner in charge of the Plastic Division audit

RE: Audit Issues

[Conflicting Accountability]

Company Letterhead (please write your memo here)

TO: Maida Heitner, CFO of **GlassCoat Inc.** and
Jim McCormick, CFO of **Flexicon, Inc.**

FROM: The partner in charge of the Plastic Division audit

RE: Audit Issues

Questionnaire

Please answer the following questions as accurately as you can.

A. How realistic was this audit case (circle one)?

1 not realistic	2	3	4	5	6	7 very realistic

B. How difficult was the task you performed in this case (circle one)?

1 not difficult	2	3	4	5	6	7 very difficult

C. To whom did you feel most responsible for your decision (circle one)?

1 GlassCoat only	2	3	4	5	6	7 Flexicon only

D. How would you have preferred to resolve the inventory issue in this case if possible (circle one)?

1 no reserve	2	3	4	5	6	7 full reserve

E. How material was the inventory issue in this case (circle one)?

1 not material	2	3	4	5	6	7 highly material

F. based on your personal experience, where would you say that most auditors generally fall on the following scale when resolving audit issues with their clients (circle one)?

1 too accommodating	2	3	4	5	6	7 too tough

G. What firm do you work for? ______________________________

H. What is your current position in the firm? __________________________________

I. Approximately how many years have you worked in public accounting? _________

J. Approximately what percentage of your clients have significant inventories? ________

K. Please list below any additional information you would have liked to have had available to help you resolve the issue in this audit case?

APPENDIX B
INSTRUMENT FOR EXPERIMENT 2

Dear Participant:

My name is Kevan Jensen; I am an assistant professor at the University of Oklahoma. I wish to invite you to participate in this research study, the purpose of which is to learn more about auditors' decision making. In particular, I am interested in how auditors make decisions. In the accompanying packet, you will be provided with an audit case where you will be asked to make a decision using the information provided in the case. You will then be asked to explain your decision in a memo. You should be able to complete the case in less that 25 minutes.

This study concerns individual decisions; hence, it is important that you work independently of other members of your firm, many of whom are also participating in this study. In reporting the study's results, all individuals and their firms will remain anonymous. When you complete the case, please seal all of the materials in the stamped, addressed envelope provided and mail it directly to me. Please return the materials to me even if you decide you do not wish to participate.

Thank you very much for your time and cooperation.

Kevan Jensen, CPA
Assistant Professor – University of Oklahoma

This study was approved by the University of Florida Institutional Review Board. The following disclaimer is required by the University of Florida for all research studies involving human participants:

You will experience no discomforts or risks during this study, and there are no immediate benefits of participation. You do not have to answer any question you do not wish to answer. Participation is completely voluntary, and you are free to discontinue your participation at any time without prejudice. No compensation will be awarded. If you have any questions or concerns about the case, please call me (405-325-5789) or my colleague, Doug Snowball (352-392-8878). If you have any concerns regarding your rights as a participant in the study, please call the University of Florida Institutional Review Board at 352-393-0433.

Dear Participant,

Thank you for your participation in this study. Please find attached a short audit case for you to complete. As you read through the case, please follow any instructions you encounter as closely an you can. At some point in the case, you will be required to make a decision about certain audit issues. Please respond to any questions in the spaces provided. Once you have completed the case, an instruction page will provide you with further information about writing a memo and completing a short questionnaire. Please pay close attention to these instructions.

To begin the case, please turn the page.

Background Information [Simple Accountability]

Your firm has audited FLEXICON INC for several years. Flexicon is a privately-held company that manufactures plastic containers in all shapes and sizes. Flexicon incorporated 25 years ago, and has since become a leader in the plastic-container market. Its chief products are sold to paint and chemical manufacturers, and increasingly to waste-disposal companies. You have been the primary partner on the Flexicon audit for three years.

Flexicon is comprised of a single division. Flexicon is quite profitable, and its owners have been looking for a way to expand into other areas of the plastics market, preferably by purchasing existing operations from someone.

Current Developments [Simple Accountability]

Flexicon is currently involved in negotiations with another company named GLASSCOAT INC about purchasing one of their divisions called Plastic Division. GlassCoat is a privately-held company that specializes in coating glass products with chemicals that reduce or enhance the type and amount of light allowed through the glass. GlassCoat was founded over three decades ago and is currently a leader in the glass-coating market. GlassCoat is about the same size as Flexicon in both sales and total assets. Your firm provides **no** services to GlassCoat.

The owners of Flexicon have asked your firm to perform an audit of Plastic Division to help them determine a purchase price for the division. An important caveat about this audit is that your client (Flexicon) will be the **only** party relying on the audit. GlassCoat is having its own audit firm evaluate Plastic Division's financial statements. Independent appraisals will be obtained for most of the fixed assets. Flexicon's owners are anxious to see the results of your audit, as they are hopeful of negotiating a favorable purchase price for the division.

Background Information [Conflicting Accountability]

Your firm has audited both GLASSCOAT INC and FLEXICON INC for several years. GlassCoat is a privately-held company that specializes in coating glass products with chemicals that reduce or enhance the type and amount of light allowed through the glass. GlassCoat was founded over three decades ago and is currently a leader in the glass-coating market. You have been the primary partner on the GlassCoat audit for three years.

GlassCoat is comprised of three divisions—Consumer Glass Division, Advanced Glass Division and Plastic Division. Of the three, Plastic Division is the only one that coats plastic products. Although all three divisions are profitable, GlassCoat's owners have not been satisfied with Plastic Division's performance. They have generally lost interest in the plastics market, and have been looking to spin off the division for some time.

Flexicon is also a privately-held company that manufactures plastic containers in all shapes and sizes. Flexicon incorporated 25 years ago, and has since become a leader in the plastic-container market. Its chief products are sold to paint and chemical manufacturers, and increasingly to waste-disposal companies. You have been the primary partner on the Flexicon audit for three years.

Flexicon is comprised of a single division. Flexicon is quite profitable, and its owners have been looking for a way to expand into other areas of the plastics market, preferably by purchasing existing operations from someone.

Current Developments [Conflicting Accountability]

GlassCoat and Flexicon are currently involved in negotiations about Flexicon purchasing Plastic Division from GlassCoat. GlassCoat and Flexicon are about the same size in both sales and total assets.

The owners of the two companies have asked your firm to perform an audit of Plastic Division to help them determine a transfer price for the division. An important caveat about this audit is that **both** of your clients (GlassCoat and Flexicon) will be relying on the audit. Independent appraisals will be obtained for most of the fixed assets. The owners of both companies are anxious to see the results of your audit, as each is hopeful of negotiating a price for the division that is favorable to them.

Audit Planning Memo Information

Assume you are also the primary partner on the audit of Plastic Division. After carefully planning the audit, you include the following items in the planning memo:

1. The audit of Plastic Division is to be a regular GAAS audit.

2. Plastic Division's assets comprise approximately 20% of GlassCoat's total assets.

3. Plastic Division's management appears to be of high integrity.

4. Plastic Division's net income for the last 12 months was $523,000.

5. Because of the nature of the audit, materiality for proposed audit adjustments is set at $50,000 (approximately .1% of total assets).

Balance Sheet

Plastic Division's unaudited balance sheet is shown below.

Plastic Division
Balance Sheet

Assets:		Liabilities and Equity:	
Cash	2,072,000	Accounts Payable	4,767,000
Accounts Receivable - net	7,609,000	Accrued Expenses	5,202,000
Inventories	14,641,000	Other Current Liabilities	1,068,000
Other Current Assets	2,726,000	Long-Term Debt	20,975,000
Plant & Equipment - net	31,072,000	Stockholders Equity	26,108,000
Total	58,120,000	Total	58,120,000

Description of Audit Issues

During your audit of Plastic Division, the following issues arose. As the primary partner on the audit, you must decide how to resolve these issues and then explain you decisions in a memo to your client.

A slow-moving item in Plastic Division's inventory was discovered during analytical procedures, where the staff noted that the inventory turnover ratio for the item had decreased significantly from last year. While the ratio had hovered around 4 throughout all of last year, it was nearly 0 for the last two quarters. The original cost of the inventory is question was $400,000. Due to its specialized nature, it has no scrap value.	An overdue account receivable from one of Plastic Division's customers was discovered during a review of the aging report. The amount is six months past due, and no payments have been received in five months. Plastic Division has not included this receivable in its allowance for bad debts. The face value of the receivable is $400,000.

Use the evidence on the following page to decide how to resolve these two issues. Once you have made your decisions, use the accompanying letterhead to write a memo to your client justifying your decisions.

Evidence

Inventory:	Receivable:
A physical inspection of the inventory in question indicated that the item exists and appears to be in saleable condition.	A request for confirmation was issued to the customer during the audit. It was not returned.
According to Plastic Division's sales manager, sales of the item slowed several months ago when Plastic's competitors began selling a technologically superior item at a price only slightly higher than the item in question. Recent attempts to sell the inventory domestically at cost have not been successful.	According to Plastic Division's credit manager, the customer has been having "temporary" cash flow problems. He says that Plastic has a long-standing relationship with the customer, and that this has happened before--though never for this long. In the past, the customer has always ended up paying off the balance. A review of the subsidiary ledgers for the past two years supports this statement.
According to Plastic Division's general manager, the reason the item has not been scrapped is that they have recently begun to sell the item in Canada, where there is less competition. Initial success there has led her to believe that they will be able to sell all of the inventory to an increasing number of customers there.	A review of Plastic Division's correspondence file indicated that the customer's cash problems appear to be the result of a contract dispute with its largest client.
A review of open orders received after the balance sheet date revealed a moderate increase in orders of the item from foreign customers.	A review of subsequent receipts indicates that no payments have been received from the customer through the end of fieldwork.

How would you resolve these audit issues?

_______Leave the inventory at cost or _______Require an audit adjustment for the inventory	_______Leave the receivable at face value or _______Require an audit adjustment for the receivable

Answer the following questions to provide additional information about your decision. Please do not go back and make any changes to your previous responses.

1. How confident do you feel about how you resolved the issues in this case (circle one)?

0 1 2 3 4 5 6 7 8 9 10

Not Confident — Very Confident

2. Given this situation, how likely would you be to require an adjustment for the inventory item and the receivable item (circle one for each)?

Inventory:

0 1 2 3 4 5 6 7 8 9 10

Not Likely — Very Likely

Receivable:

0 1 2 3 4 5 6 7 8 9 10

Not Likely — Very Likely

3. How large a reserve (if any) would you propose that Plastic Division establish for each of the two items (circle one for each)?

Inventory:

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
no reserve										full reserve

Receivable:

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
no reserve										full reserve

4. How likely would you have been to consult with another partner in your firm regarding the issues in this case (circle one)?

0	1	2	3	4	5	6	7	8	9	10
Not Likely										Very Likely

Thank you for completing this portion of the audit case. Having made your decisions, please use the following instructions to complete the case, and to return the materials to me.

1. Write your memo on the accompanying letterhead (next page) by simply listing your reasons for deciding as you did. Such a list will be easier to interpret than a formal memo.

2. Once you have completed your list, complete the questionnaire (following pages) as accurately and completely as possible.

3. Finally, once you have completed the memo and the questionnaire, place all the materials in the accompanying preaddressed stamped envelope and mail it back to me.

Once again, thank you very much for your participation.

[Simple Accountability]

Company Letterhead (please write your memo here)

TO: Jim McCormick, CFO of **Flexicon Inc.**

FROM: The partner in charge of the Plastic Division audit

RE: Audit Issues

[Conflicting Accountability]

Company Letterhead (please write your memo here)

TO: Maida Heitner, CFO of **GlassCoat Inc.** and
Jim McCormick, CFO of **Flexicon, Inc.**

FROM: The partner in charge of the Plastic Division audit

RE: Audit Issues

Questionnaire

Please answer the following questions as accurately as you can.

A. How realistic was this audit case (circle one)?

1	2	3	4	5	6	7
not realistic						very realistic

B. How difficult was the task you performed in this case (circle one)?

1	2	3	4	5	6	7
not difficult						very difficult

C. To whom did you feel most responsible for your decision (circle one)?

1	2	3	4	5	6	7
GlassCoat only						Flexicon only

D. How material was the inventory issue in this case (circle one)?

1	2	3	4	5	6	7
not material						highly material

E. How material was the receivable issue in this case (circle one)?

1	2	3	4	5	6	7
not material						highly material

F. Based on your personal experience, where would you say that most auditors generally fall on the following scale when resolving audit issues with their clients (circle one)?

1	2	3	4	5	6	7
too accommodating						too tough

G. What firm do you work for? ___________________________

H. What is your current position in the firm? _______________________________

I. Approximately how many years have you worked in public accounting? ________

J. Approximately what percentage of your clients have significant inventories? _______

K. Approximately what percentage of your clients have significant receivables? _______

L. Please list below any additional information you would like to have had available to help you resolve the issue in this audit case?

BIOGRAPHICAL SKETCH

Kevan Lee Jensen was born on December 7, 1960, in Provo, Utah, to Gerald and Gunhild Jensen. Shortly after Kevan's birth, his family moved to Newark, California, a small town in the San Francisco bay area, where they live to this day. After graduating from Newark High School, Kevan served as a missionary for two years in northern Belgium. Upon his return to the United States, Kevan attended Brigham Young University, where he studied accounting and played on the BYU soccer team. Kevan graduated in May 1988 with a Bachelor of Science degree in accounting and a Master of Accountancy degree with an emphasis in auditing. He then took a position with the audit department of Touche Ross (later Deloitte & Touche), a large international accounting firm, in their San Francisco/Oakland offices, where he worked until July of 1992, when he left to pursue a Ph.D. in accounting.

Kevan is married to the former Eileen Menlove from Salt Lake City, Utah. Kevan and Eileen have five children: Keelan, Bridey, Tristan, Miles, and Liam. In his spare time, Kevan enjoys playing the piano, working with wood, and being involved in his children's sporting and other activities.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

W. Robert Knechel, Chairman
Professor of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

William F. Messier, Jr.
Professor of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Doug Snowball
Professor of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Joseph W. Alba
Distinguished Professor of Marketing

This Dissertation was submitted to the Graduate Faculty of the Warrington College of Business Administration and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 2000

Dean, Graduate School